Klimor

EVO-R COMPACT

COMPACT AHU

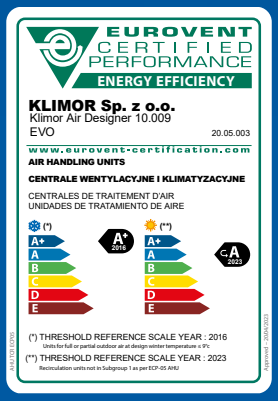
EUROVENT CERTIFIED PERFORMANCE
AHU No.: 20.05.003
Range: EVO
www.eurovent-certification.com

EVO-R

A versatile approach to ventilation, recovery, heating and cooling of air in rooms with large cubic capacity.

KLIMOR products are a **guarantee of high-quality materials and components** as well as care for the production process. All units are **manufactured in Poland** at the company's own production facilities.

EVO-R (X/O)* and EVO-R (X/O) HPM** are the **perfect units for use in ventilation systems in buildings with large cubic capacity,** such as shopping and logistics centres, sports and entertainment venues, office buildings, production halls and warehouses.



* X – counterflow recuperator / O – rotary regenerator **HPM – heat pump module

commercial and service buildings

recreation and sports facilities

industrial and manufacturing facilities

office buildings and business centers

hospital facilities and laboratory premises

Why EVO-R?

- High heat recovery efficiency of up to 88%
- High-efficiency EC fans
- Compact design and optimized dimensions
- Ductless air distribution system
- Universal system for opening doors to the right/left or for complete removal
- Easy installation and maintenance
- Integrated Plug&Play control system; Ready, remote management and monitoring
- High degree of separation between supply and exhaust air streams (EVO-RX)
- Built-in inverter heat pump module (EVO-R HPM)
- Full 100% bypass and free-cooling function, "recirculation" mode for rapid heating/cooling

PRODUCTIVITY [m³/h] 3750 ÷ 9200

PLUG & PLAY READY

2 BASIC SIZES

EVO-R (X/O)

BASIC FUNCTIONS

- **PF** PRE-FILTER
- **VF** FAN SET
- **CPR** COUNTER FLOW PLATE HEAT EXCHANGER
- **RR** ROTARY HEAT EXCHANGER

OPTIONAL FEATURES

- **WH** WATER HEATER
- **EH** ELECTRICAL HEATER
- **WC** WATER COOLER
- **DX** DIRECT EVAPORATING COOLING

EVO-R (X/O) HPM

BASIC FUNCTIONS

- **PF** PRE-FILTER
- **VF** FAN SET
- **HPM** HEAT PUMP MODULE
- **CPR** COUNTER FLOW PLATE HEAT EXCHANGER
- **RR** ROTARY HEAT EXCHANGER

OPTIONAL FEATURES

- **WH** WATER HEATER
- **EH** ELECTRICAL HEATER

EVO-R

The EVO-R is a compact **supply-and-exhaust air handling unit** with a high-performance counter flow (X) or rotary (O) heat exchanger respectively, with the option of **cooling and heating functions.** The unit consists of an outdoor module installed on the roof on AHU plinth and an indoor module located under the ceiling of the room (optionally) .

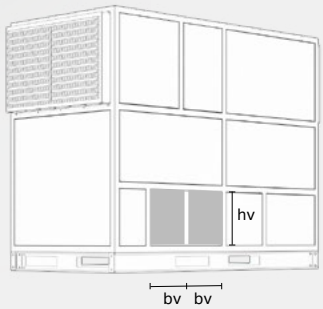
1. Mini-pleat supply air filter F7 / ePM1 class 60%
2. Counterflow plate heat exchanger with full 100% bypass or rotary regenerator
3. Water cooler or DX
4. Water or electric heater
5. Complete supply and exhaust EC fan assemblies
6. Exhaust filter class M5 / ePM10 50%
7. Long-range swirl diffuser with adjustment blade angle
8. Air intake with built-in rainwater deflector

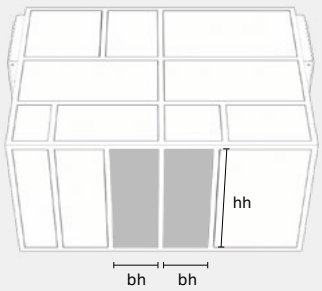
Technical data

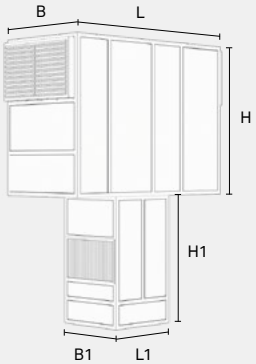
		EVO-RX 0500	EVO-RX 0800	EVO-RO 0500	EVO-RO 0800
Nominal Capacity	m³/h	5000	8000	5000	8000
Maximum heat recovery efficiency	%	88	88	83	84
Air Capacit	m³/h	3750÷5750	5000÷9200	3000÷5750	5000÷9200
Externa pressure	Pa	400	400	400	400
Maxmum water cooler cooling capcity 4R/6R	kW	42/74	68/120	42/74	68/120
Maxmum DX cooling capcity	kW	33/60	68/98	33/60	68/98
Maxmum water / electrical heater heating capcity	kW	40 / 45	65 / 90	40 / 45	65 / 90
Maximum suuply fan output capacity	kW	2,5	2x2,5	2,5	2x2,5
Maximum exchaust fan output capacity	kW	2,5	2x2,5	2,5	2x2,5
Supply voltage	V	3x400	3x400	3x400	3x400
Maximum weight of outdoor unit OU	kg	809	1198	760	1050
Maximum weight of indoor unit IU	kg	226	252	226	252

DX: To=6°C; R410C; CW: 6/12°C; HW: 80/60°C

Dimensions







Unit model	Unit size	Outdoor module							Indoor module			
		B	H	L	hv	bv	hh	bh	B1	H1*	L1	ØD
		[mm]							[mm]			
EVO-RX	0500	1300	1950	2560	460	475	900	400	950	1650	950	630
EVO-RX	0800	1650	2360	2970	460	680	950	450	1050	1650	1050	800
EVO-RO	0500	1300	1950	2560	460	475	900	400	950	1650	950	630
EVO-RO	0800	1650	2360	2970	460	680	950	450	1050	1650	1050	800

ØD - diameter of the long-throw diffuser | For a stand-alone outdoor unit, a 120mm high panel frame is used
* Dimensions variable (every 100mm) resulting from the thickness of the roof, the given dimension is a minimum

EVO-R HPM

EVO-R (X/O) HPM is a compact **supply-and-exhaust air handling unit** with high-efficiency heat recovery and an integrated air-to-air inverter heat pump. Available with a counter-flow (X) or rotary (O) heat exchanger, it ensures **optimal energy performance and indoor comfort.** The system includes a roof-mounted outdoor module and a ceiling-installed indoor module, and can also operate as a stand-alone outdoor unit connected to air ducts. Optional heating functions provide added **flexibility for a wide range of applications.**

1. Mini-pleat supply air filter F7 / ePM1 class 60%
2. Counterflow plate heat exchanger with full 100% bypass or rotary regenerator
3. Complete supply and exhaust EC fan assemblies
4. Exhaust filter class M5 / ePM10 50%
5. Built-in heat and cooling recovery module – inverter heat pump
6. Water or electric heater
7. Long-range swirl diffuser with adjustment blade angle
8. Air intake with built-in rainwater deflector

Technical data

		EVO-RX HPM 0500	EVO-RX HPM 0800	EVO-RO HPM 0500	EVO-RO HPM 0800
Nominal Capacity	m^3/h	5000	8000	5000	8000
Maximum heat recovery efficiency	%	88	88	83	84
Air Capacit	m^3/h	3750÷5750	5000÷9200	3000÷5750	5000÷9200
Externa pressure	Pa	400	400	400	400
Maxmum DX cooling / heating capcity	kW	28 / 31	45 / 50	28 / 31	45 / 50
Maxmum water heater heating capcity	kW	40 / 45	65 / 90	40 / 45	65 / 90
Maximum suuply fan output capacity	kW	2,5	2x2,5	2,5	2x2,5
Maximum exchaust fan output capacity	kW	2,5	2x2,5	2,5	2x2,5
Supply voltage	V	3x400	3x400	3x400	3x400
Maximum weight of outdoor unit OU	kg	1004	1421	1013	1332
Maximum weight of indoor unit IU	kg	226	252	226	252

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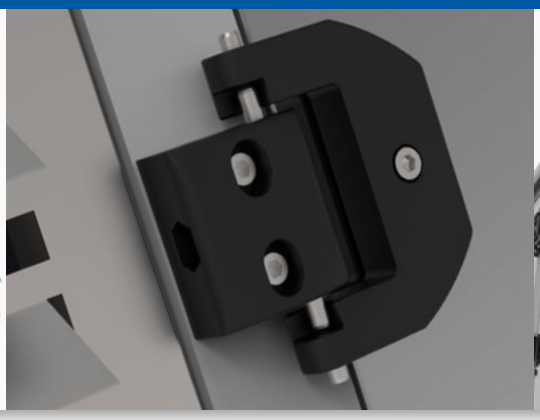

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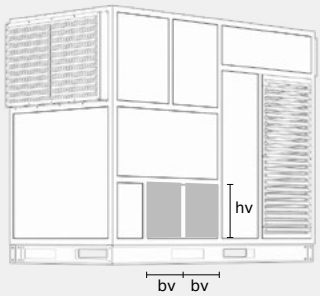

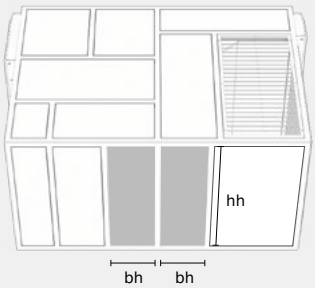

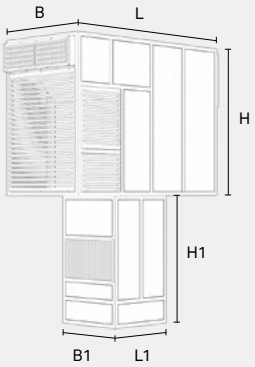

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ØD - diameter of the long-throw diffuser | For a stand-alone outdoor unit, a 120mm high panel frame is used
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CONTROL SYSTEM

Bearing in mind the currently high requirements resulting from the needs of users and industry regulations, KLIMOR's offer goes to meet them.

The new automation solution is not only the local control and control of AHU. It is primarily a remote management and prevention system based on cloud technology. Control of the operation of the panels becomes intuitive thanks to the use of touch screen LCDs, suitably sized to the type and configuration of the device. The standard open communication protocols MODBUS, BACnet, and ETHERNET, implemented on board of the controller, allow to fully integrate all units within the framework of comprehensive BMS systems.

Klimor **control functions:**

LOCAL

LCD HMI

AHU WORKING VISUALISATION

- Air quality control
- Temperature / Humidity control
- Summer / Winter operation mode
- Standby mode
- Callendar mode
- Operation on demand
- Operation failure protection
- Service time
- External stop
- Operation and Service settings
- Trends
- Emergency shut-down in case of fire

REMOTE

ALL LOCAL HMI FUNCTIONS AVALIABLE VIA:

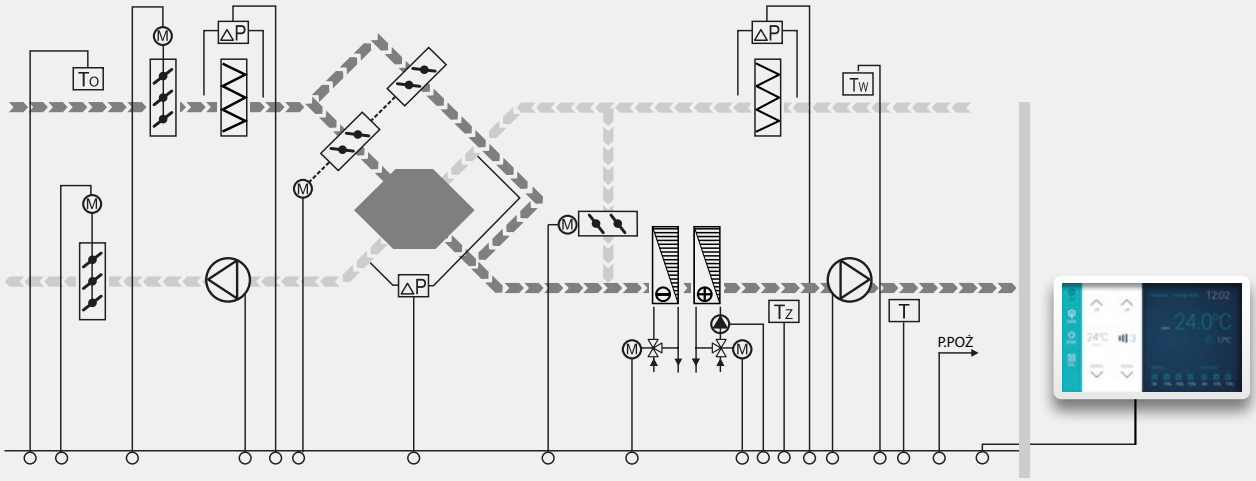
MODBUS Modbus

BACnet BACnet

Ethernet

WEB platform (Cloud)

EVO - R (X) control system diagram

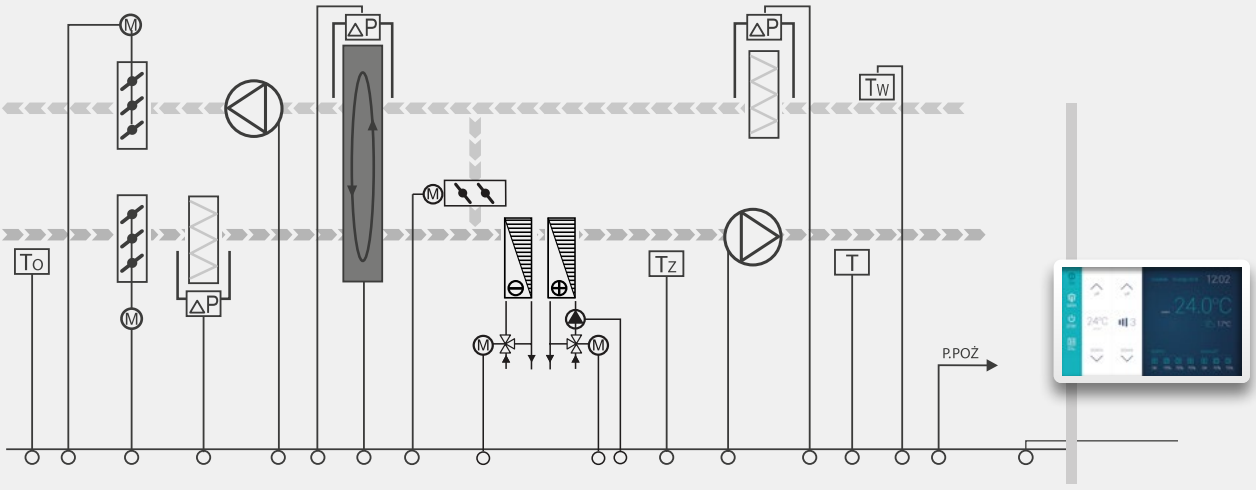


Monitoring of ambient, supply, exhaust and room temperatures / Monitoring of filter contamination / Monitoring of heat pump cooling system / Monitoring of fan unit operation / Air capacity control / Supply air temperature control / Energy recovery control / Frost protection for heat recovery exchanger and water heater / Free-cooling operation / Night recirculation of „fast heating"

ADDITIONAL SYSTEM FEATURES:

Operating mode - manual or automatic setting according to the calendar | Alarm status information | Drive system overload protection | Power supply for an additional water exchanger circulation pump 1x230V 50Hz with a power of up to 500W | Pressure transducers - maintaining constant output | "Recirculation" mode for rapid heating/cooling | Monitoring and management via web server (www) or Klimor Cloud | Connections - RS485 SLAVE / RS485 MASTER, USB, ETHERNET, HMI CON | Communication - Modbus RTU, BACnet MS / TP, Modbus TCP / IP, BACnet IP | External integrated RJ45 communication port

EVO - R (O) control system diagram



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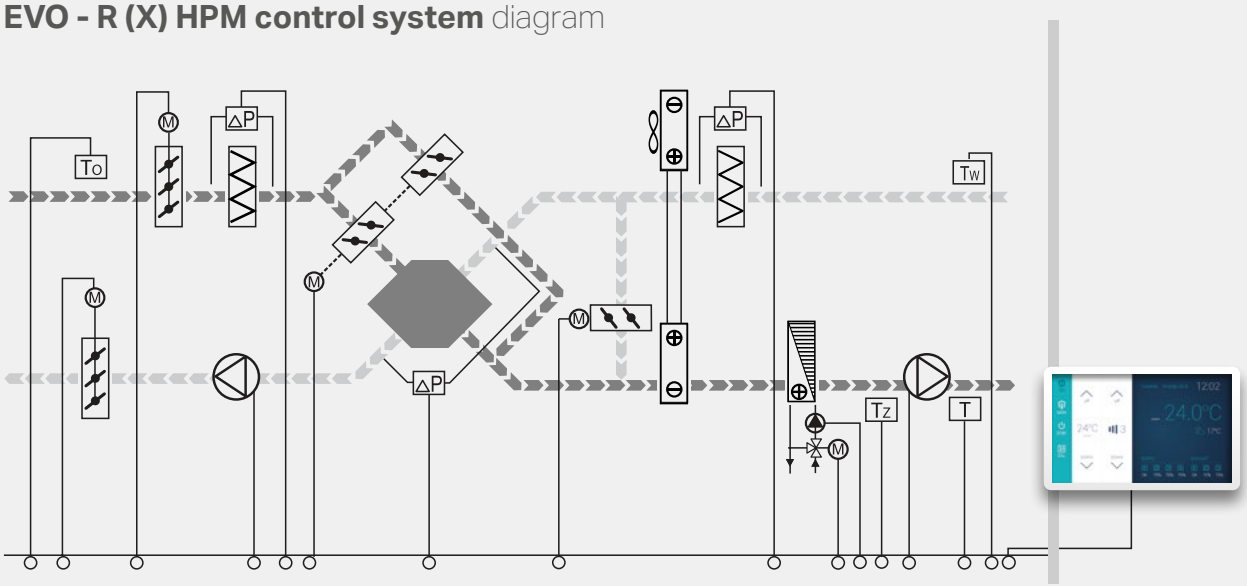
EVO - R (X) HPM control system diagram



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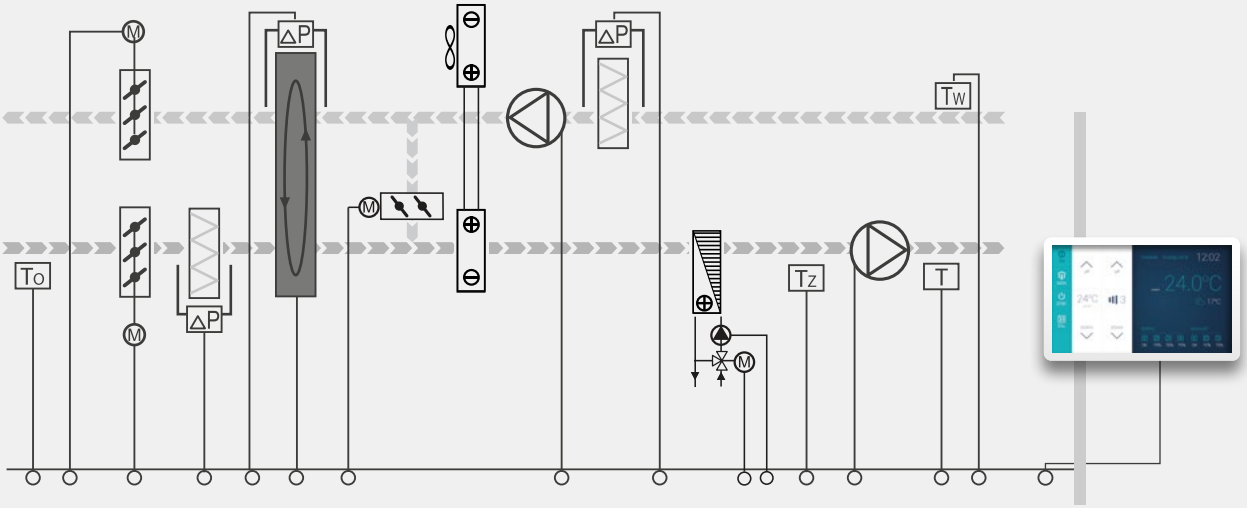

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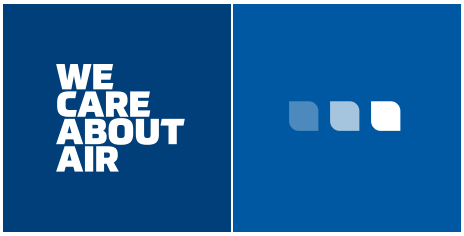
Klimor

If you cannot find suitable solution please let us know. **We will design a custom solution especially for You.**

klimor.com klimor@klimor.com



MADE IN POLAND

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