HEAT PUMP COMBI UNIT PKOM⁴A/AK

PATENT

ECO FRIENDLY

AUSTRIA

CERTIFIED COMPONENT
Passive House Institute

COMFORT VENTILATION

GET IT ON Google Play

Download on the App Store

PICHLER

Systematic ventilation.

Residential living will always be changing and developing with the times. Apart from architectural considerations, the total energy balance is of increasing importance. Legislators, ongoing development of building materials and the quality of construction are consistently raising the standard of residential construction, thereby reducing energy consumption. Whether Passive House, EnerPHit or Near Zero Energy Building – ventilation of the living quarters is deemed essential and at the core of modern residential building design. Extension of the functionalities of a ventilation unit to include heating, cooling and hot water supply is a natural consequence!

Product description

One device, 4 benefits:
Ventilating – heating – cooling – hot water
The heat pump combi unit with patented two-circuit heat pump system unites these four functions on a footprint of less than 0.75 m^2.
Controlled ventilation of living rooms will constantly ensure fresh and filtered outside air in the rooms and ensure hygienic exchange of air. The highly efficient heat recovery system is also optionally available as a design with recovery of waste air humidity. To prevent overly high summer temperatures in the living rooms, heat recovery may also be bypassed during cooler night hours by means of a bypass flap.

PKOM⁴A classic

The PKOM⁴A classic heat pump combi unit is the preferred compact overall solution for passive house construction homes with a living area of 80 to 130 m^2. The volume of household hot water will comfortably provide for a family of 4 – 5. A controlled heat pump will in addition condition the supply air, i.e. heated or cooled on demand. The adjustable air volume flow is between 130 and 250 m^3/h in heating mode. Another heat pump is used for efficient provision of household hot water. Both heat pumps may be operated in parallel to ensure uninterrupted provision of air and water.

PKOM⁴AK classic

The PKOM⁴AK classic heat pump combi unit has the same advantages but is used for a living area of up to 80 m^2. The adjustable air volume flow is between 80 and 150 m^3/h in heating mode. The volume of domestic hot water remains the same, but is supplied at a lower heat output.

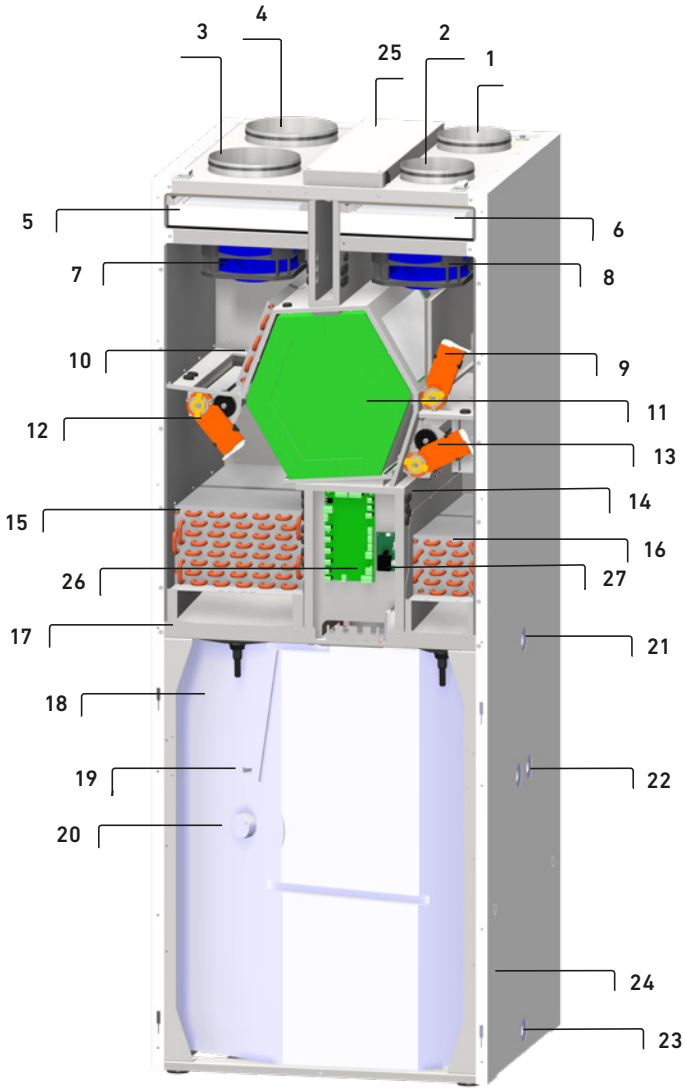
PKOM⁴A/AK trend

Household hot water storage and the associated heat pump are omitted in the PKOM⁴A/AK trend unit version. The PKOM⁴A/AK trend heat pump combi unit is the best alternative to conventional living room ventilation units. The supply air into the living rooms will be cooled and dehumidified during summer, as needed. The supplied air will be heated in the colder months.

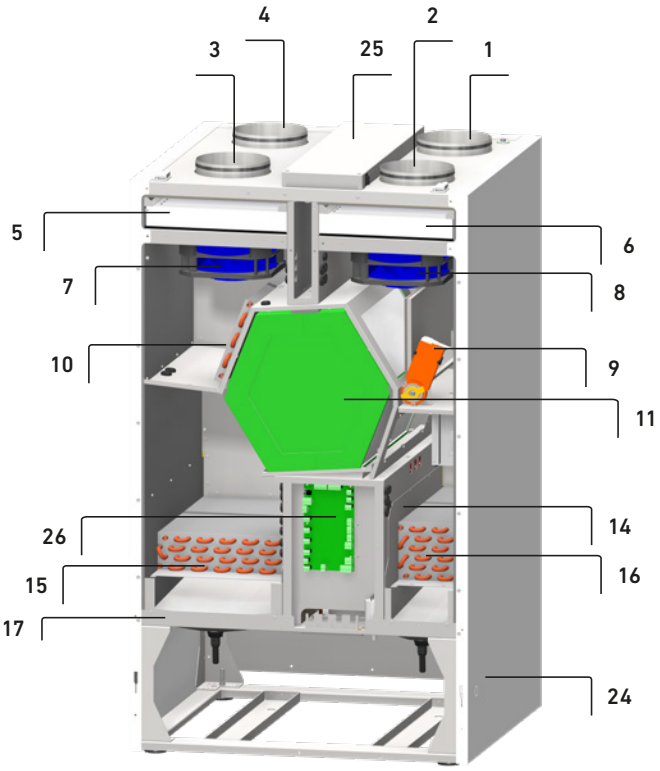
We differentiate between 2 versions:
- PKOM⁴A/AK classic:
  Version with household hot water.
- PKOM⁴A/AK trend:
  Version without household hot water.

Layout sketch

PKOM⁴A/AK CLASSIC (RIGHT-HANDED VERSION)



PKOM⁴A/AK TREND (RIGHT-HANDED VERSION)



PATENT

REFERRING TO ITEM 15
Patented two-circuit heat pump system

- Allows for especially efficient operation
- Both heat pumps can be operated in parallel
- Due to its large surface, it increases the efficiency of the heat pump in basic operation and increases the Seasonal Performance Factor and the *COP of both the service water and the heat pump
- Allows for especially efficient cooling operation while generating hot water at the same time
- The waste heat that is generated during the cooling operation is recovered for the purpose of heating the service water

*) Coefficient of Performance

1 Supply air (SUP)
2 Extract air (ETA)
3 Outdoor air (ODA)
4 Exhaust air (EHA)
5 Filter ODA ISO ePM1 55%
6 Filter ETA ISO ePM10 75%
7 Outdoor air fan
8 Extract air fan
9 Bypass flap with servo motor
10 Pre-heater battery for outdoor air
11 Counterflow heat exchanger
12 ODA/EHA flap with servo motor
13 ODA/SUP flap with servo motor
14 Compressor in housing
15 Heat exchanger in exhaust air
16 Heat exchanger in supply air
17 Condensate tray
18 Household hot water tank
19 Impressed current anode
20 Electrical heating element with thermal cut-out
21 Hot water connection ¾“ (female pipe thread)
22 Heating battery connection ¾“ (female pipe thread)
23 Cold water connection ¾“ (female pipe thread)
24 Condensate drain
25 Electrical connection box with main PCB
26 Heat pump PCB
27 Circuit board for impressed current anode

Dimensions

PKOM⁴A/AK CLASSIC

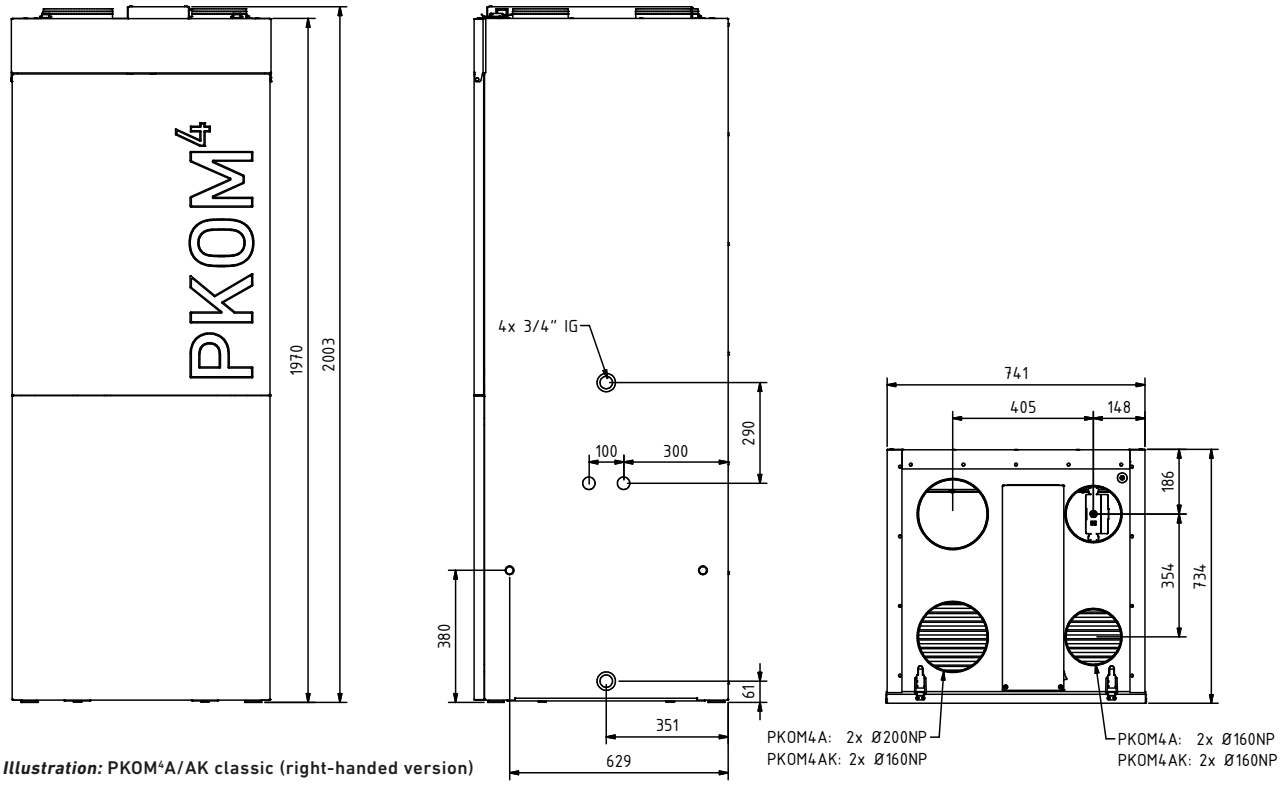


Illustration: PKOM⁴A/AK classic (right-handed version)

Dimensions

PKOM⁴A/AK TREND

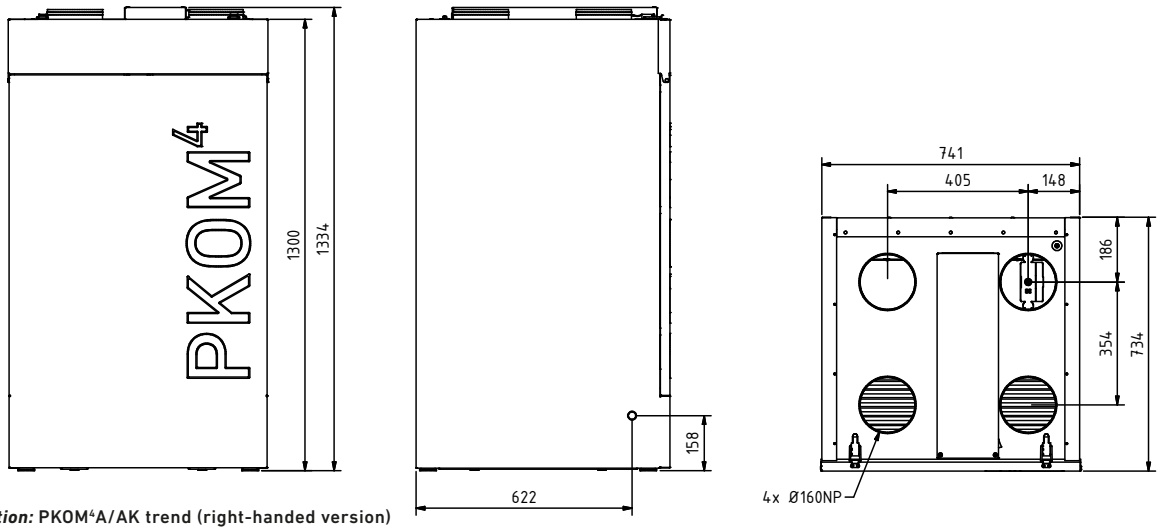
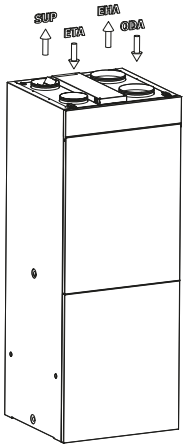
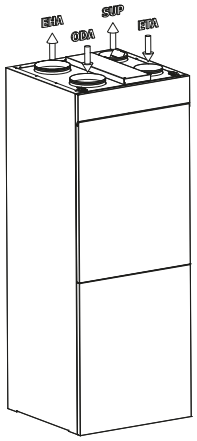
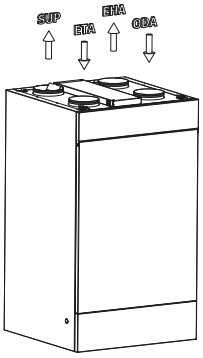
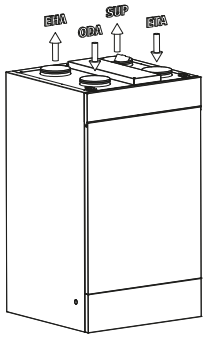


Illustration: PKOM⁴A/AK trend (right-handed version)

Versions

The PKOM⁴A/AK heat pump combi unit is available in several versions.

Article PKOM⁴A/AK classic	Left-handed version	Right-handed version
with standard heat exchanger	08PKOM4ALS / 08PKOM4AKLS	08PKOM4ARS / 08PKOM4AKRS
with standard heat exchanger and heating coil in the hot water storage tank	08PKOM4ALSW / 08PKOM4AKLSW	08PKOM4ARSW / 08PKOM4AKRSW
with enthalpy exchanger*	08PKOM4ALF / 08PKOM4AKLF	08PKOM4ARF / 08PKOM4AKRF
with enthalpy exchanger* and heating coil in the hot water storage tank	08PKOM4ALFW / 08PKOM4AKLFW	08PKOM4ARFW / 08PKOM4AKRFW
		
Article PKOM⁴A/AK trend	**Left-handed version**	**Right-handed version**
with standard heat exchanger	08PKOM4ALSO / 08PKOM4AKLSO	08PKOM4ARSO / 08PKOM4AKRSO
with enthalpy exchanger*	08PKOM4ALFO / 08PKOM4AKLFO	08PKOM4ARFO / 08PKOM4AKRFO
		

*) **TIP!** Compared to the standard heat exchanger, the enthalpy exchanger will recover not only heat from the extract air, but also a large percentage of the humidity. This humidity-heat exchanger will therefore ensure a pleasant indoor climate especially in cold months.

Technical specifications

VENTILATION PART WITH HEAT PUMP

	PKOM⁴A classic	PKOM⁴A trend	PKOM⁴AK classic	PKOM⁴AK trend
Volume flow min - max (ventilation mode)	85 – 250 m^3/h variable	85 – 250 m^3/h variable	50 – 150 m^3/h variable	50 – 150 m^3/h variable
Volume flow min - max (heating mode)	130 – 250 m^3/h variable	130 – 250 m^3/h variable	80 – 150 m^3/h variable	80 – 150 m^3/h variable
Ventilation stages	4	4	4	4
Max. external compression at V_{max}	> 200 Pa	> 200 Pa	> 200 Pa	> 200 Pa
Permissible outdoor air temperature	-15 to +40 °C	-15 to +40 °C	-15 to +40 °C	-15 to +40 °C
Max. heat output with/without heat recovery at A2/A50 and V_{ref}	2,362 W / 1,495 W	2,362 W / 1,495 W	1,581 W / 1,047 W	1,581 W / 1,047 W
Max. cooling power, heat pump with A35 and V_{max}	1,950 W / 1,365 W	1,950 W / 1,365 W	1,255 W / 831 W	1,255 W / 831 W
Refrigerant	R1234yf	R1234yf	R1234yf	R1234yf
Fill volume	1,000 g	1,000 g	1,000 g	1,000 g
VALUES ACCORDING TO EN16573 AND EN13141-7				
Reference volume flow rate V_{ref}	175 m^3/h	175 m^3/h	90 m^3/h	90 m^3/h
Heat output with/without heat recovery, heat pump with A2/A35 at V_{ref}	1,786 W / 860 W	1,786 W / 860 W	1,077 W / 543 W	1,077 W / 543 W
Cooling power with/without heat recovery, at A35/A27 and V_{ref}	1,207 W / 655 W	1,207 W / 655 W	741 W / 431 W	741 W / 431 W
Temperature change on the supply air side (standard heat exchanger)	92 %	92 %	92 %	92 %
Spec. Input power SIP (standard heat exchanger)	0.29 W/(m^3/h)	0.29 W/(m^3/h)	0.31 W/(m^3/h)	0.31 W/(m^3/h)
Leckage extern/intern	1.4 % / 1.9 %	1.4 % / 1.9 %	1.4 % / 1.9 %	1.4 % / 1.9 %
COP Heating with/without heat recovery with A2/A35 at V_{ref}	5.91 / 3.32	5.91 / 3.32	7.04 / 3.55	7.04 / 3.55
EER cooling with/without heat recovery with A35 at V_{ref}	3.29	3.29	2.4	2.4
VALUES AS PER PHI				
Air volume application range	115 – 220 m^3/h	115 – 220 m^3/h	Without certification	
Heat recovery efficiency $\eta_{WRG,eff}$ (standard)	83 %	83 %	Without certification	
Electrical efficiency	0.29 W/(m^3h)	0.29 W/(m^3h)	Without certification	

HOT WATER PART WITH HEAT PUMP

VALUES ACCORDING TO N 16147	PKOM⁴A classic	PKOM⁴AK classic
Storage tank volume with / without heating coil	212 / 220 l	212 / 220 l
Heating battery (optional)	0.8 m^2	0.8 m^2
Max. household hot water temperature with heat pump	55°C	55°C
Max. heating power, heat pump	1,400 W	750 W
Max. household hot water temperature with Electrical heating element	65°C	65°C
Electric-heating Electrical heating element	1,500 W	1,500 W
Legionella protection	yes	yes
Refrigerant	R1234yf	R1234yf
Fill volume	1,000 g	1,000 g
Consumption pattern	L (Large)	L (Large)
Energy efficiency class	A	A
Energy efficiency	80.3 %	80.3 %

ELECTRICAL

	PKOM⁴A classic	PKOM⁴A trend	PKOM⁴AK classic	PKOM⁴AK trend
Electrical connection	230V ~ 1/50 Hz	230V ~ 1/50 Hz	230V ~ 1/50 Hz	230V ~ 1/50 Hz
Max. power consumption [W]	2,800	750	2,400	580
Max. current consumption [A]	12.8	3.8	10.9	2.9
Earth leakage circuit breaker	Type B – current impulse sensitive	Type B – current impulse sensitive	Type B – current impulse sensitive	Type B – current impulse sensitive
Line fuse	C16A	C16A	C16A	C16A

HOUSING

	PKOM⁴A classic	PKOM⁴A trend	PKOM⁴AK classic	PKOM⁴AK trend
Material	Powder coated sheet steel	Powder coated sheet steel	Powder coated sheet steel	Powder coated sheet steel
Duct connections supply air / extract air	Ø 160 mm	Ø 160 mm	Ø 160 mm	Ø 160 mm
Duct connections outdoor air / exhaust air	Ø 200 mm	Ø 160 mm	Ø 160 mm	Ø 160 mm
Dimensions (W x H x D)	741 x 2003 x 734 mm	741 x 1334 x 734 mm	741 x 2003 x 734 mm	741 x 1334 x 734 mm
Weight	240 kg	140 kg	240 kg	140 kg

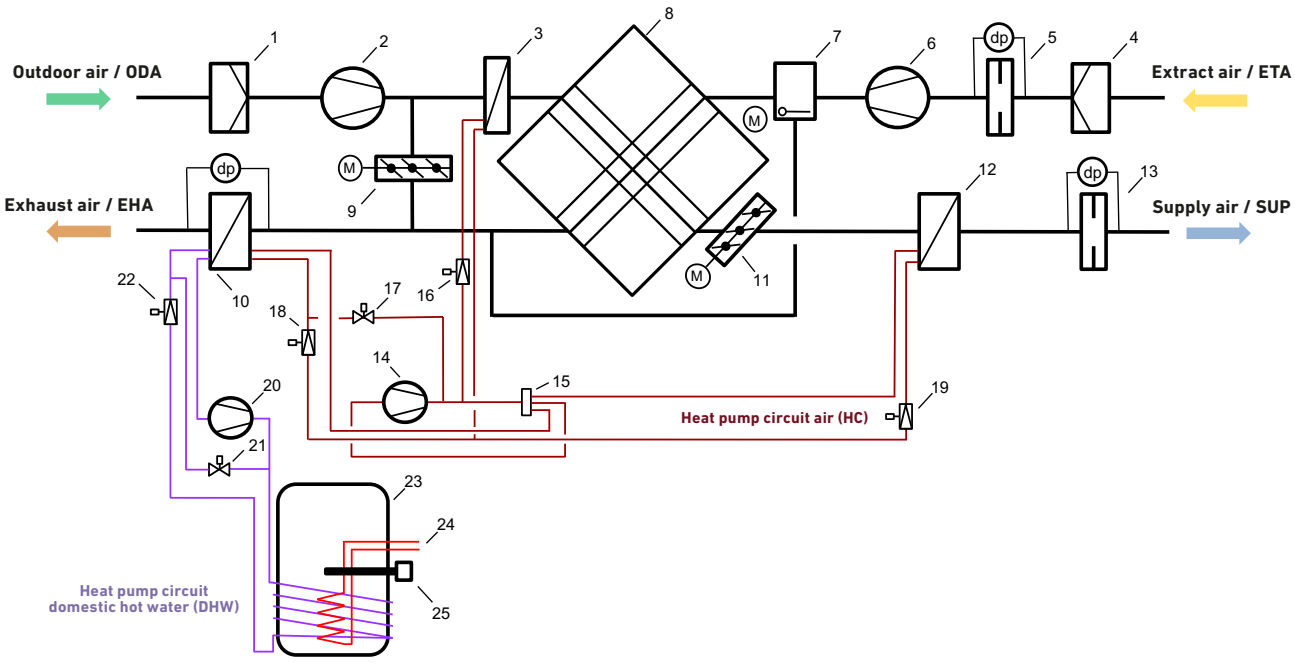
ACOUSTIC DATA

The acoustic measurements pursuant to EN 12102 refer to an airflow of 250 m^3/h with 100 Pa external compression and activated heat pump.

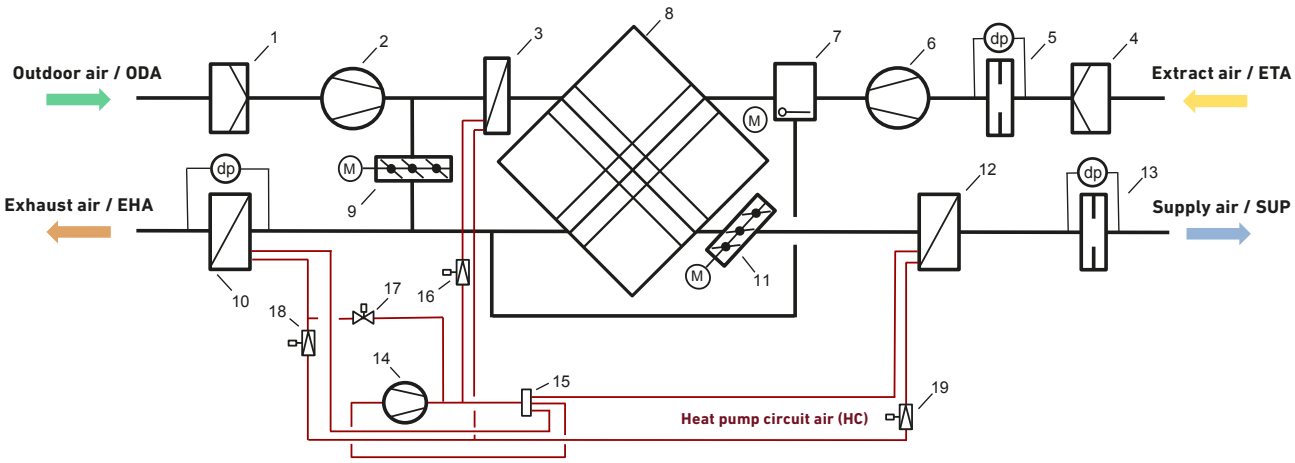
Measuring point		Supply air connecting piece	Outdoor air connecting piece	Extract air connecting piece	Exhaust air connecting piece	Housing emission
63 Hz	L_W	74.8 dB	75.3 dB	72.1 dB	73.8 dB	49.3 dB
125 Hz		46.4 dB	67.9 dB	66.2 dB	52.0 dB	55.1 dB
250 Hz		51.7 dB	69.0 dB	70.5 dB	53.5 dB	53.1 dB
500 Hz		43.6 dB	56.6 dB	58.2 dB	45.1 dB	40.1 dB
1000 Hz		33.9 dB	52.8 dB	56.6 dB	40.4 dB	35.1 dB
2000 Hz		25.6 dB	53.4 dB	52.3 dB	27.2 dB	30.4 dB
4000 Hz		14.9 dB	43.5 dB	47.2 dB	14.1 dB	24.2 dB
8000 Hz		1.2 dB	26.8 dB	33.9 dB	1.5 dB	19.8 dB
Total L_{WA}		**50.3 dB(A)**	**63.1 dB(A)**	**64.4 dB(A)**	**50.8 dB(A)**	**47.1 dB(A)**
Total L_{PA} in 1m						**37.3 dB(A)**

Remark: Tolerances ± 2 dB for acoustic data

Functional diagram PKOM⁴A/AK classic



Functional diagram PKOM⁴A/AK trend



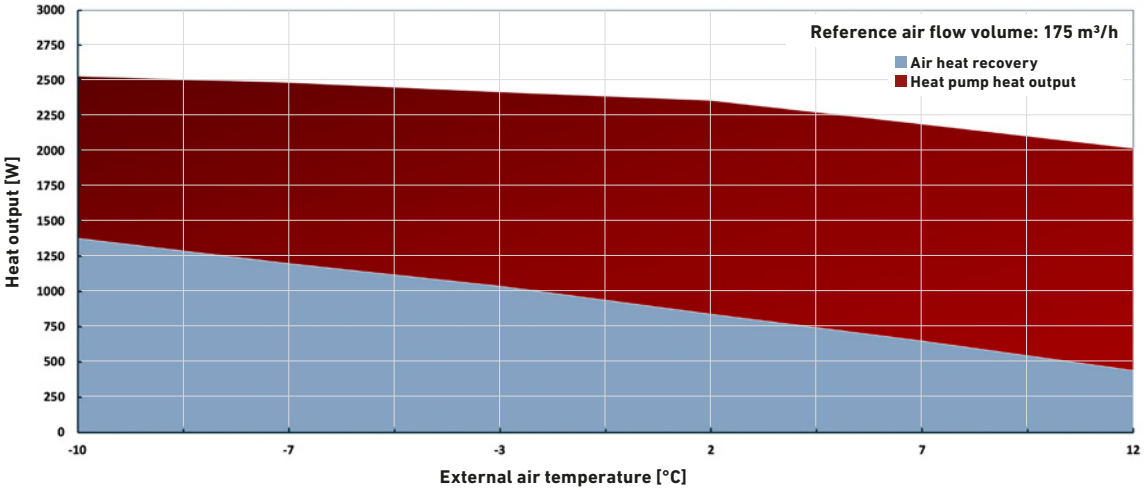
1 Filter ODA ISO ePM1 55%
2 Outdoor air fan
3 Pre-heater battery for outdoor air (HE1)
4 ETA filter ISO ePM10 75%
5 Air volume measurement extract air
6 Extract air fan
7 Bypass flap with servo motor
8 Counterflow heat exchanger
9 Outdoor air/exhaust air flap with servo motor
10 Heat exchanger in exhaust air (HE3)
11 Outdoor air/exhaust air flap with servo motor
12 Heat exchanger in supply air (HE2)
13 Air volume measurement, supply air
14 Compressor with frequency converter (HC circuit)
15 4-way switching valve (HC circuit)
16 Control valve pre-heating battery (HC circuit)
17 Solenoid valve, defrosting (HC circuit)
18 Expansion valve, heating (HC circuit)
19 Expansion valve, cooling (HC circuit)
20 Compressor circuit (DHW circuit)
21 Solenoid valve, defrosting (DHW circuit)
22 Expansion valve (DHW circuit)
23 Domestic hot water storage tank
24 Heating battery in domestic hot water storage tank
25 Electrical heating, domestic hot water

DHW = Circuit for domestic hot water
HC = Circuit for supply air (heating / cooling)

Total heating output

WITH 175 m³/h

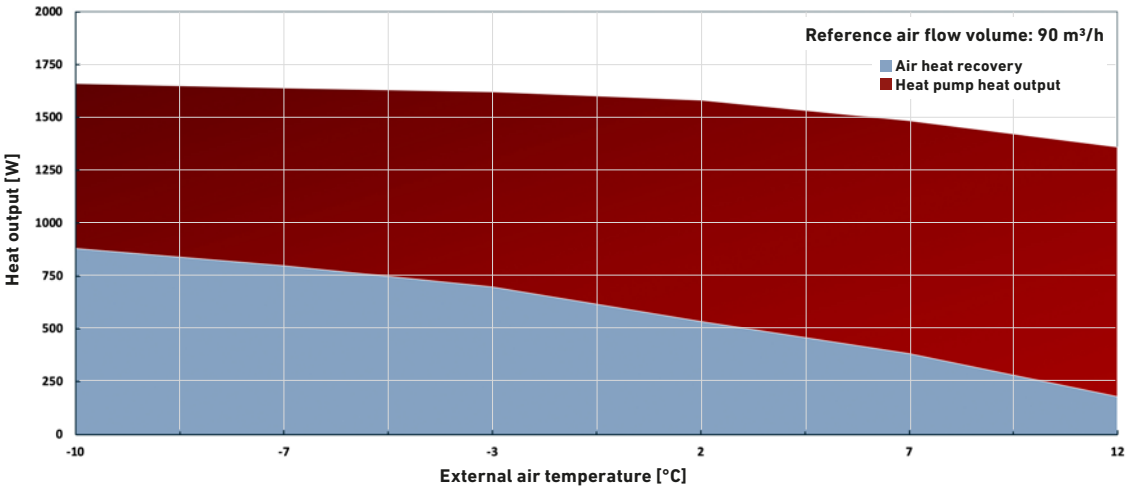
PKOM⁴A – HEAT PUMP COMBI UNIT



To achieve the full heat output, the given air volume flow is supplemented with external air. (heat recovery air + heating capacity of heat pump)

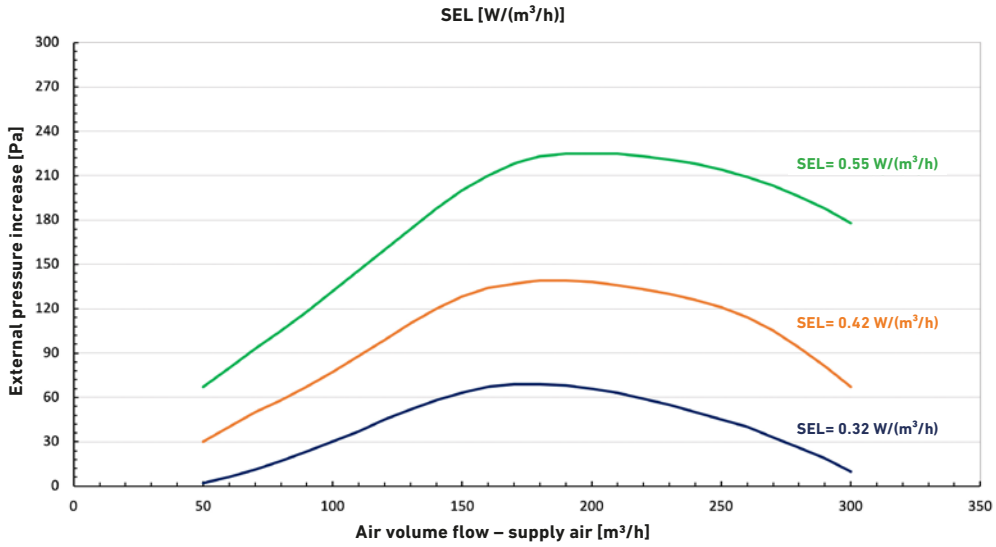
WITH 90 m³/h

PKOM⁴AK – HEAT PUMP COMBI UNIT



To achieve the full heat output, the given air volume flow is supplemented with external air. (heat recovery air + heating capacity of heat pump)

Pressure/flow rate characteristic



Data in accordance with EU Regulations

HEAT PUMP COMBI UNIT PKOM⁴A CLASSIC

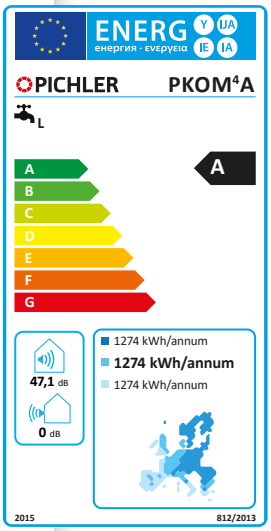
The heat pump combi unit fulfills the requirements of the Ecodesign Directive, in accordance with EU Regulations 812/813-2013.

Specific energy consumption: Efficiency class A is achieved with an outdoor air temperature of +7°C (+6°C wet bulb).

Product fiche

Heat pump combi unit: PKOM⁴A.S/F

supplier's name or trade mark	J. Pichler GmbH
model identifier	PKOM⁴A.S/F
declared load profile	L
water heating energy efficiency class	A
water heating energy efficiency	80,3 %
the annual electricity consumption in kWh in terms of final energy	1274 kWh
temperature settings, as placed on the market	55 °C
the sound power level L_{WA} in dB, indoors	47,1 dB(A)
able to work only during off-peak hours	no
precautions when assembled, installed or maintained	see operating and installation instructions
storage volume in litres	212 l



Filter change
The filters are to be replaced as soon as the command to replace the filters appears on the display of the operator control unit (marked red in the picture alongside).

CAUTION:
If the filters are not changed regularly, the system can not work efficiently and the power consumption increases.

Operator control unit "TOUCH"

Waste disposal
Units that are no longer in working order have to be dismantled and properly disposed of by a specialized company via suitable collection centres and in compliance with the waste electrical and electronic equipment ordinance (WEEE), which provides for ratification of community law, directive 202/95/EC (RoHS) and the directive 2002/96/EC (the WEEE directive).

Information based on the current state of knowledge of EU Regulation 812/2013
Download from: www.pichlerluft.at

PICHLER
Systematic ventilation.

J. PICHLER
Gesellschaft m.b.H.

office@pichlerluft.at
www.pichlerluft.at

ÖSTERREICH
9021 KLAGENFURT AM WÖRTHERSEE
Karlweg 5
T +43 (0)463 32769
F +43 (0)463 37548

ÖSTERREICH
1100 WIEN
Doerenkampgasse 5
T +43 (0)1 6880988
F +43 (0)1 6880988-13

Sales offices in Slovenia and Serbia.
Sales partners in Germany, Switzerland and Italy.

TOUCH control unit

Modbus/KNX Gateway

Operation

The PKOM⁴ heat pump combi unit can offer the user many different configurations. Switch-over from summer to winter and back may be manually or automatic. Scheduled operation depending on time of day or week will allow setting of different air volumes and room temperatures. Active cooling with the heat pump may be activated or deactivated as desired. The electrical heater may also be switched on should the requirement for hot water increase on occasion.

TOUCH CONTROL UNIT

Operation is simple and intuitive via touch display. The most important settings and readings are very easy to make. The integrated room sensor is also used to monitor and control the room temperature.

Advantages of controlling:
- Automatic summer and winter adjustment
- Holiday function
- Individually adjustable air volumes
- Programs based on time of day and day of the week
- Legionella protection
- Additional functions for solar and additional heater
- Energy balancing
- CO_2 and humidity control
- Eco-Mode (Smart Grid Ready / PV Ready)

Control unit dimensions:
(W x H x D) 110 x 84 x 25 mm
Cable: Telephone installation wiring JY(ST)Y 2x2x0.8
Max. installation length < 100 m

EASY OPERATION WITH THE PICHLER APP

User-friendly: the heat pump combination unit can be operated easily with our free smartphone app for iOS and Android, whether you are at home or out and about:

GET IT ON Google Play

Download on the App Store

REMOTE ACCESS / PICHLER CONNECT

Operational safety: Pichler customer service automatically receives information on your heat pump combination unit in the event of a malfunction. Remote access faciliates a prompt response with minimal effort.

PICHLER connect.

BUILDING AUTOMATION

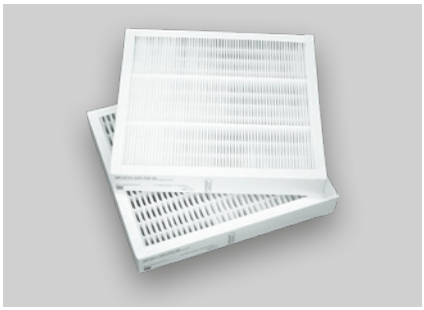
Connection to a building automation via integrated Modbus RTU interface. Optionally, a gateway for the KNX bus system is also available.

MODBUS/KNX GATEWAY

The Modbus/KNX gateway provides for the connection of a heat pump combi unit to a KNX bus system. In this case, the gateway serves as a connective link between the two bus systems. Note that the gateway always acts as the master for the Modbus. On the KNX side, however, it responds like a standard KNX TP-1 unit. This makes it possible to centrally control and monitor the ventilation unit/heat pump combi unit using a KNX system.
A "Config Tool" (a DCA or Device Configuration App) is provided to facilitate configuration of the ETS. With this, it is possible to adopt any existing configurations for the gateway.

Technical specifications:
Dimensions: L x W x D = 18 x 100 x 60 mm
Weight: approx. 50 g
Mounting: Top hat rail DIN serial mounting 1TE
Permissible ambient temperature: -5 to 45°C
Permissible storage temperature: -25 to 70°C
Permissible humidity: 5 to 93% non-condensing
Protection class: IP20
Power supply: KNX bus, approx. 8 mA
Interfaces: EIA-485, KNX-TP1

Item	Item number
Modbus/KNX gateway	08KNXGAC



Spare filter

Duct heating battery 1200 watt

Temperature sensor

Accessories

SPARE FILTER

will ensure perfect hygiene and air quality given regular replacement, also proper functionality and efficient operation of the unit.

Item		Item number
Filter ETA ISO ePM10 75% (Extract air)	synthetic	40LG050280
Filter ODA ISO ePM1 55% (Outdoor air)	glass fibre	40LG050290

DUCT HEATING BATTERY 1200 WATT

Greater power on request. With integrated temperature limiter and thermal protection. The controller is the PKOM⁴ heat pump combi unit. It will only be activated if the heat pump fails to achieve the desired supply air temperature for extended periods.

Item	Item number
Duct heating battery PKOM⁴	08CV16121VICIAL
Duct temperature sensor NTC	40LG041920

Max. power	1200 W
Output control	0 – 10 V
Minimum air volume	110 m^3/h
Duct connection	Ø 160 mm
Installation length	375 mm

TEMPERATURE SENSOR

for the temperature measurement and heating control of an additional room in connection with the heating circuit module. The sensor in the surface-mounted housing is suitable for wall mounting.

Item	Item number
Room-temperature sensor	07RTF49357

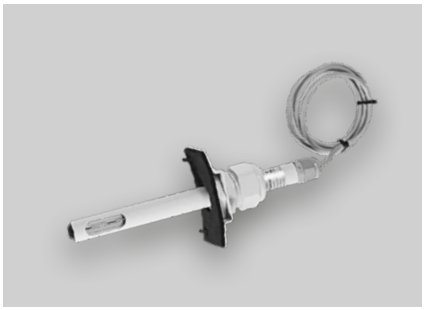
Colour	white
Type	NTC 10 kOhm
Reference signal	0 – 10 V
Dimensions W x H x D	85 x 85 x 35 mm

SENSOR MOUNTING KIT

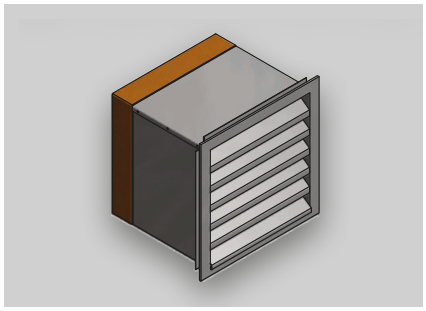
For fastening and installing sensors with a diameter of 3.5 to 8 mm. The kit is designed for use in round pipes and drains indoors.

Item	Item number
Sensor mounting kit	07FMSET8

Room sensor (temperature, humidity or CO_2 sensor)



Humidity sensor duct installation



Wall duct

HUMIDITY SENSOR

for ventilation control to suit requirements. The heat pump combi unit will automatically increase or reduce the air volumes depending on the humidity of the air in the room. The sensor in the surface-mounted housing is suitable for wall mounting.

Item	Item number
Humidity sensor	07RHF49360

Colour	white
Measuring range	0 – 100 % RH
Reference signal	0 –10 V
Dimensions W x H x D	85 x 85 x 35 mm

CO_2 SENSOR

for ventilation control to suit requirements. The heat pump combi unit will automatically increase or reduce the air volumes depending on the quality of the air in the room. The sensor in the surface-mounted housing is suitable for wall mounting.

Item	Item number
CO_2 sensor	07RCO248330

Colour	white
Measuring range	0 – 2000 ppm
Reference signal	0 – 10 V
Dimensions W x H x D	85 x 85 x 35 mm

HUMIDITY SENSOR DUCT INSTALLATION

for ventilation control to suit requirements. The heat pump combi unit will automatically increase or reduce the air volumes depending on the humidity of the air in the room. The sensor is installed in the exhaust air duct.

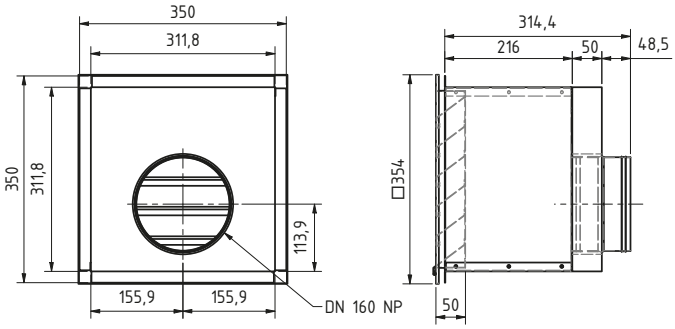
Item	Item number
Humidity sensor duct intstallation	07KTRHF49337

Measuring range	10 – 90 % RH
IP protection class	IP 10
Supply voltage	24VAC
Dimensions	Ø 18 – 200mm

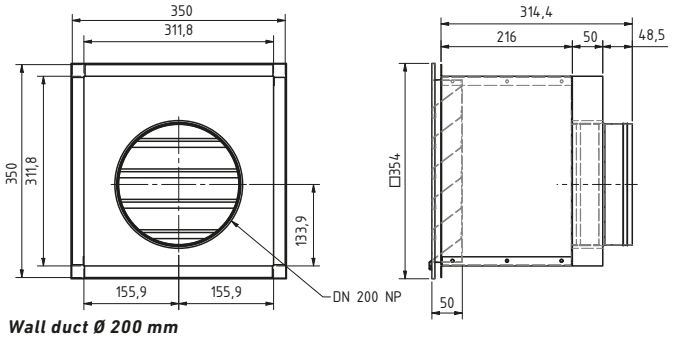
WALL DUCT

The thermally insulated and soundproof wall duct with a stainless steel weather protection grille and insulation in the rear area is used as an acoustically optimised outdoor or exhaust air element. A 10 x 10 mm mesh grille is integrated into the wall duct. The A-evaluated sound pressure level is reduced by app. 6 dB(A) on the outdoor and exhaust air connecting piece. An approximate cut-out of 350 x 350 mm has to be established for the installation.

Item	Dimensions W x H x D	Item number
Wall duct Ø 200 mm	350 x 350 x 314,4 mm	08PKOMMLA200
Wall duct Ø 160 mm	350 x 350 x 314,4 mm	08PKOMMLA160



Wall duct Ø 160 mm



Wall duct Ø 200 mm

Air humidification unit

AIR HUMIDIFICATION UNIT

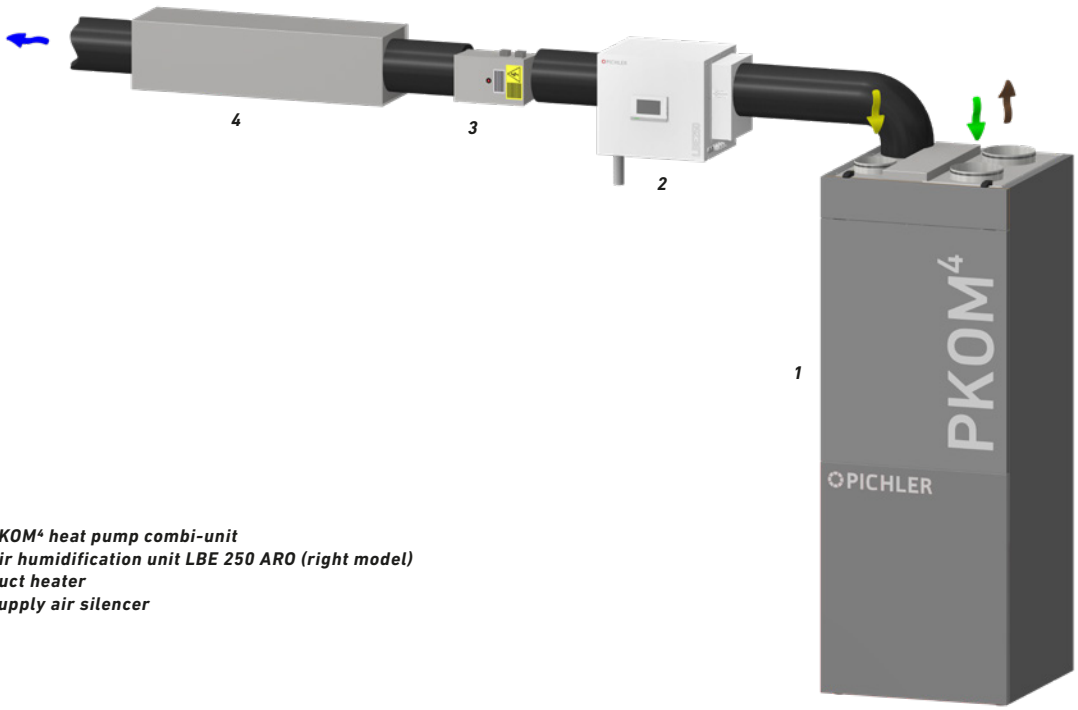
A compact, automatic air humidification unit for active supply air humidification, for living rooms and lounges, a patented and certified system suitable for installation in ventilation systems, only in combination with a PKOM⁴ heat pump combination device. The compact air humidification unit works according to the natural evaporation principle and ensures constant and optimal humidity in the supply air. The build-up of germs and bacteria in the unit is permanently and effectively prevented through the continuous, automatic monitoring of UVC disinfection and time-controlled water replacement. A reverse osmosis unit is integrated into the water supply line in order to effectively protect the unit against calcification. Downstream of the air humidification unit, the supply air is heated again to the required air temperature by an electric duct heater.

Technical specifications:

- *Airflow volume:* max. 350 m^3/h
- *Pressure loss:* max. 72 Pa
- *Air humidity:* 4.5 – 11.5 g/m^3 (with 4 optional levels)
- *Evaporation performance:* max. 2.5 l/h
- *Air connection:* Ø 160 mm
- *Water connection:* 3/4"
- *Waste flow connection:* Ø 40 mm
- *Empty weight / operating weight:* 25 / 28 kg
- *Voltage:* 230 V / 50 Hz
- *Dimensions:* W x H x D = 510 x 385 x 360 mm
- *Electrical power consumption:* 100 W

Item	Item number
Air humidification unit (right-hand version)	08LBE250ARO
Air humidification unit (left-hand version)	08LBE250ALO

Schematic for installation



1 PKOM⁴ heat pump combi-unit
2 Air humidification unit LBE 250 ARO (right model)
3 Duct heater
4 Supply air silencer

PKOM⁴A/AK trend at a glance!

- EC radial fans, speed controlled
- Filter ETA ISO ePM10 75% / Filter ODA ISO ePM1 55%
- Plastic counterflow heat exchanger or enthalpy exchanger
- Summer bypass flap to bypass the heat recovery (free cooling)
- Integrated heater using heat pump hot gas for protection against freezing
- Reversible cooling circuit design
- Frequency controlled rotating piston compressor for heating and cooling the supply air
- Electronic expansion valves
- TFT touch display with integrated room temperature sensor
- Integrated WEB server and LAN interface to local networks
- Smart Grid Ready (PV Ready)

PKOM⁴A/AK classic at a glance!

PROPERTIES IN ADDITION TO PKOM⁴A/AK TREND VERSION

- Additional cooling circuit with rotating piston compressor for household hot water heating
- Household hot water tank with PU hard foam insulation
- Optionally with additional heating battery (e.g. for solar connection, heating circuit connection)
- Corrosion protection through high quality enamelling in accordance with DIN 4753 and titanium impressed current anode
- Electrical heater for emergency operation or to assist in times of increased demand for hot water
- Patented two-circuit heat pump system

Your partner/installer:

Responsible for the content: J. Pichler Gesellschaft m.b.H. | ***Graphics and layout:*** WERK1 Werbegraphik GmbH
Photos: J. Pichler Gesellschaft m.b.H. | ***Text:*** J. Pichler Gesellschaft m.b.H.
 Version: 10/2025 en/p

PICHLER
Systematic ventilation.

J. PICHLER
Gesellschaft m.b.H.

AUSTRIA
9021 KLAGENFURT AM WÖRTHERSEE
Karlweg 5
T +43 (0)463 32769

1100 WIEN
Doerenkampgasse 5
T +43 (0)1 6880988

office@pichlerluft.at
www.pichlerluft.at

PICHLER
Lüftungstechnik G.m.b.H

GERMANY
86825 BAD WÖRISHOFEN
Altvaterstraße 23

office@pichlerluft.de
www.pichlerluft.de

PICHLER & CO d.o.o.
prezračevalni sistemi

SLOVENIA
2000 MARIBOR
Cesta k Tamu 26
T +386 (0)2 46013-50

pichler@pichler.si
www.pichler.si

KLIMA DOP d.o.o.
klimatizacija i ventilacija

SERBIA
11070 NOVI BEOGRAD
Autoput Beograd-Zagreb bb (Blok 52 – prostor GP „Novi Kolektiv")
T +381 (0)11 3190177

office@klimadop.com
www.klimadop.com