# WE OFFER COMPLETE SOLUTIONS FOR YOUR HOUSING TECHNOLOGY

COMFORT VENTILATION

## **PICHLER**

Systematic ventilation.

## OPICHLER





PKOM<sup>4</sup> is a highly efficient super combiner. The compact device unites the four functions of ventilation, heating, cooling, and warm water treatment on an installation space of less than 0.75 m<sup>2</sup>.

### INNOVATIVE

VENTILATION, HEATING, COOLING, AND WARM WATER TREATMENT IN THE LOW-ENERGY HOUSE

This is the way of living completely relaxed: The air is fresh, the room climate is perfect on 365 days, no matter whether it's winter or summer, the room temperature, CO<sub>2</sub> and humidity level are agreeable, lovely warm water is flowing, comfort is spreading. The housing technology is compactly packaged in one combination unit that is responsible for ventilation, heating, cooling, and warm water treatment at the same time. The system is set and controlled simply at the touch of a button. And then it runs like clockwork. The name of this innovative ventilation technology system solution for lowenergy houses: PKOM<sup>4</sup>.

#### PKOM4: THE VENTILATION TECHNOLOGY SYSTEM SOLUTION IN THE LOW-ENERGY HOUSE

Energy efficiency plays a key role in the low-energy houses. Modern low-energy houses today are achieving low heating loads which make it possible to bring the major part of the heating and cooling capacity into the building at the same time with the air exchange through the ventilation system. This paves the way for particularly efficient and cost-effective overall aeration systems such as PKOM<sup>4</sup>. They provide for an innovative "change of air" in the low-energy house.

## HEAT PUMP COMBINATION UNIT WITH

The PKOM<sup>4</sup> compact heat pump combination unit not only provides for the ventilation, heating, and cooling of low-energy houses, but also for warm water treatment. By its innovative and patented\* heat pump technology (airheating pump) and its intelligent heat recovery system, it achieves optimum efficiency values. Furthermore the PKOM<sup>4</sup> can be ideally combined with an intelligent energy management system and renewable energies (photovoltaics). In this way, further operating costs can be reduced. The passive house certified super combination presents itself in a compact, efficient, cost-effective, low-maintenance, and environmentally friendly fashion. Completely in step with the times.

## MULTIFUNCTIONAL

#### THE PKOM<sup>4</sup> HEAT PUMP COMBINATION UNIT

#### COMPLETE AND COMPACT

- Passive house certified compact unit
- Ventilation, heating, cooling, and warm water treatment in one device
- Space-saving (installation space < 0.75 m<sup>2</sup>)
- Interior installation (without outdoor unit)

#### EFFICIENT AND SIMPLE

- Low operating costs
- High heat recovery rate (extract air)
- Easy and cost-efficient installation
- Intuitive operation via touch screen or app

#### COMFORTABLE AND RELIABLE

- Austrian quality product
- Ensures an optimum room climate on all 365 days of the year
- Quiet and reliable during operation
- Customer service with remote access (maintenance-friendly technology)

#### CLEAN AND ENVIRO-NMENTALLY FRIENDLY

- Utilization of renewable energy (modern heat pump technology) with air as heat source
- Decentralized solution with simple energy billing (cold water meter, electricity meter)

#### FLEXIBLY USABLE AND COMBINABLE

- Suitability for new construction and renovation (low-energy house standard)
- Use in single-family houses
- or in multi-storey housing • Available with enthalpy heat exchangers for moisture recovery
- Very well combinable with photovoltaic systems (optimized power consumption with SG-Ready) and an intelligent energy management system





Detached single-family house / passive house new building / solid construction / 149 m<sup>2</sup> living space / 1 PKOM<sup>4</sup> heat pump combination unit

Detached single-family house / passive house / wooden construction / 140 m<sup>2</sup> living space / 1 PKOM<sup>4</sup> heat pump combination unit

Mobile student residence / passive house new building / wooden construction / 2100 m<sup>2</sup> living space / 21 PKOM<sup>2</sup> heat pump combination units

### EXEMPLARY

PKOM<sup>4</sup>: PERFECT ROOM CLIMATE AND UPSCALE LIVING COMFORT FROM THE SINGLE-FAMILY HOUSE TO THE STUDENT RESIDENCE

#### ENERGY-OPTIMIZED SINGLE-FAMILY HOUSE

This energy-optimized passivehouse is located approximately 60 km to the South-West of Prague, in the small Czech town of Přibram. While its external appearance is rather on the classic side, its inner values are ultramodern and completely in step with the times. The single-family house with its living space of 149 m<sup>2</sup> is equipped with a building automation system, which provides for an excellent living comfort and at the same time optimizes the energy demand. Centrepiece of the system: the Pichler PKOM<sup>4</sup> heat pump combination unit.



#### CERTIFIED LOW-TECH PASSIVE HOUSE

This single-family house which was already built in 2000 is the first certified passive house in Austria and is located in the picturesque village of Roitham in Upper Austria. The groundlevel building with its living space of 140 m<sup>2</sup> is not built with a cellar and stands out by its circular form with an outer diameter of 15 m. In terms of the low-tech concept, the building envelope is excellently insulated, free of thermal bridges, and airtight. Today, the complete housing technology is covered by a PKOM<sup>4</sup> compact unit, which is located in the toilet area on a space of 0.75 m<sup>2</sup>.



#### "MOBILE STUDENT" RESIDENCE IN SEESTADT ASPERN

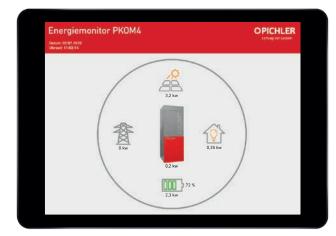
In the "PopUp-GreenFlex-Studios" in the city quarter Seestadt Aspern in Vienna, 21 PKOM<sup>4</sup> compact units are in use in total. The student residence consists of 21 residential units, (five per floor), providing enough space for 84 students in total. The building (passive house standard) is ecological, energetically optimized, and nevertheless cost-effective. An interesting detail on the side: The studio apartments are designed so that they can be flexibly disassembled and reassembled in another place.



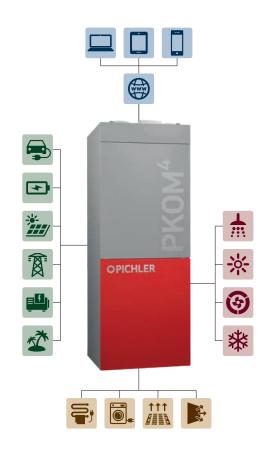


### SYSTEM SOLUTION WITH RENEWABLE ENERGY

As compact ventilation unit, the heat pump combi unit PKOM<sup>4</sup> replaces a full-featured heating/cooling/service water system. By combination with renewable energy such as photovoltaics and energy management, the PKOM<sup>4</sup> presents an efficient, cost-effective system solution, by means of which operating costs are reduced to a minimum, thus making it possible to implement a zero-energy building, or even a "plus energy" building.



Operation and visualisation on terminal devices





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## **OPICHLER**

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