# OBJECT OF THE MONTH

## PASSIVE HOUSE, GERMANY

The older part of the passive house in solid construction was built in 1997 and certified as the first passive house. First, two window elements and glasses in the existing building were replaced. The necessary extension in lightweight timber construction in 2019/20 raised the issue of further energy supply. Heating energy is hardly required in a passive house. The hot water supply and the residual current as well as the electric car should be supplied by PV as far as possible.

The compact heat pump combi unit PKOM⁴ provides for ventilation, heating and cooling as well as warm water treatment. By its innovative heat pump technology (air-heating pump) and its intelligent heat recovery system it achieves optimum efficiency values. In combination with an intelligent energy management system and photovoltaics the operating costs are 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.

In summary, the idea from initial planning of the existing building from 1996 has been clearly visualized and expanded here. Saving energy when it comes to housing construction is easy and simple – it merely requires consistent implementation by the persons involved in the construction process. This refurbishment including the expansion makes it possible to control the energy costs of the coming decades.

### *DATA & FACTS*

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| Location: | Germany |
| Completion: | 2020 |
| Type of building: | Single family house |
| Heating demand: | 12.1 kWh/(m²a) |
| Heat transition coefficients: | 0.09 0.1 W/(m²K) |
| PV system: | 8.4 kWp |
| Storage battery: | 9 kWh |
| Products: | PKOM⁴ system solution |

Product groups:

*COMFORT VENTILATION*

TRIGOS 2020 REGIONAL KÄRNTEN GEWINNER


PICHLER
*Systematic ventilation.*

*01/2021*