

HEATPUMP RETHOUGHT



SIMPLY ENGINEOUS

Heating centre with PV-Boost
heating costs from € 200,- p.a.*

**MADE IN
AUSTRIA**

HEATING, COOLING, VENTILATION AND BETTER USAGE OF SOLAR ENERGY

THE COMPACT HEATING CENTRE as geothermal- or air-heat pump

Heating, cooling, ventilation, preparing of warm freshwater and temperature regulation down to the room level: With the compact heat pump NHWP Ovum offers a comfortable and highly efficient solution with a complete allround-equipment for detached houses with a heating requirement up to 14 kW. The system makes possible a significant increase of the self-produced photovoltaics electricity.

Everything a modern detached house needs

The new heating centre NHWP consists within compact dimensions everything that's necessary for the living comfort of a detached house. It heats, cools, makes domestic hot water with a freshwater system, regulates the temperatures down to the room level all year long and is capable of regulating a residential ventilation. Additionally it's designed to ensure an optimum amount of self-consumption of PV-electricity up to 65% which normally corresponds to a doubling of the usage of self-produced electricity.

Optimum buffer tank capacity for the usage of PV-electricity

The biggest domestic hot water buffer tank of its category with 480 respectively 660 litres is designed for an optimum usage of PV-electricity because it bridges over 24 hours. Because of this it is ensured that – considering the assumption of normal domestic hot water consumption in a 4-person-household – the reloading times are situated in the daytime if free PV-electricity is available. Smaller buffer tanks consisting of 200 litres (like in other compact systems) cannot bridge over 24 hours and therefore the loading often takes place outside the times in which solar electricity can be used.

Comfort and efficiency thanks to deeply integrated management electronics

The management electronics are integrated into the complete system and optimize the own consumption on different positions. It recognizes a surplus of PV-electricity by itself and saves the energy as heat in the heating buffer tank, in the freshwater buffer tank and as an additional option in the underfloor heating. At the same time it controls the performance of the fully modulating heat pump and adjusts it optimally to the actual offer of solar electricity. All functions are controllable by the user down to the room level by a smartphone app or by a self-explanatory touchscreen.



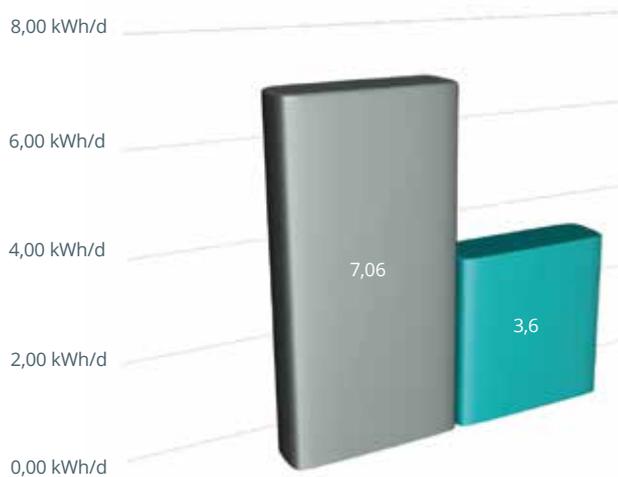
OVUM NHWP



NHWP-Display

Patented thermo safe saves all systems components

Another increase of efficiency is achieved by the patented thermo safe technology. As the only provider on the market Ovum saves all components of the system of heat loss by this. Standby losses are reduced by 50% through the common insulation of the buffer tank and technical unit compared to conventional systems.



Standby losses:

- Standard buffer tanks with external parts
- NHWP thermo safe



Patentierter Thermotresor



NHWP-Freshwater system

Freshwater system for efficient and legionella safe for preparation of domestic hot water

The freshwater system has clear advantages when it comes to efficiency and hygiene. Already 50°C are sufficient for the preparation of domestic hot water because fresh water gets heated only at the time of consumption – therefore legionella problems are excluded. Additionally the NHWP can provide high temperatures especially efficient by the usage of the integrated desuperheating technology*. In case of a surplus of PV-electricity the domestic hot water buffer tank can be loaded up to 58°C and thereby the capacity of this big buffer tank can be used optimally.

Ovum Heating Technology short profile

Ovum Heating Technology from Kirchbichl in Tyrol develops and produces smart heat pump systems for detached- and apartment houses. The highest standards of heat pump technology are used in the OVUM products. Additionally OVUM products can communicate with other building services like a PV-system, a residential ventilation or a living space cooling – or the can be managed directly by the OVUM energy manager. The integration of various systems provides varied possibilities for increasing the efficiency.

The NHWP heat pump, was awarded at the Austrian Country-Award Innovation 2017.

*Enthitzungstechnologie bei NHWP06-S+ und NHWP12-S+

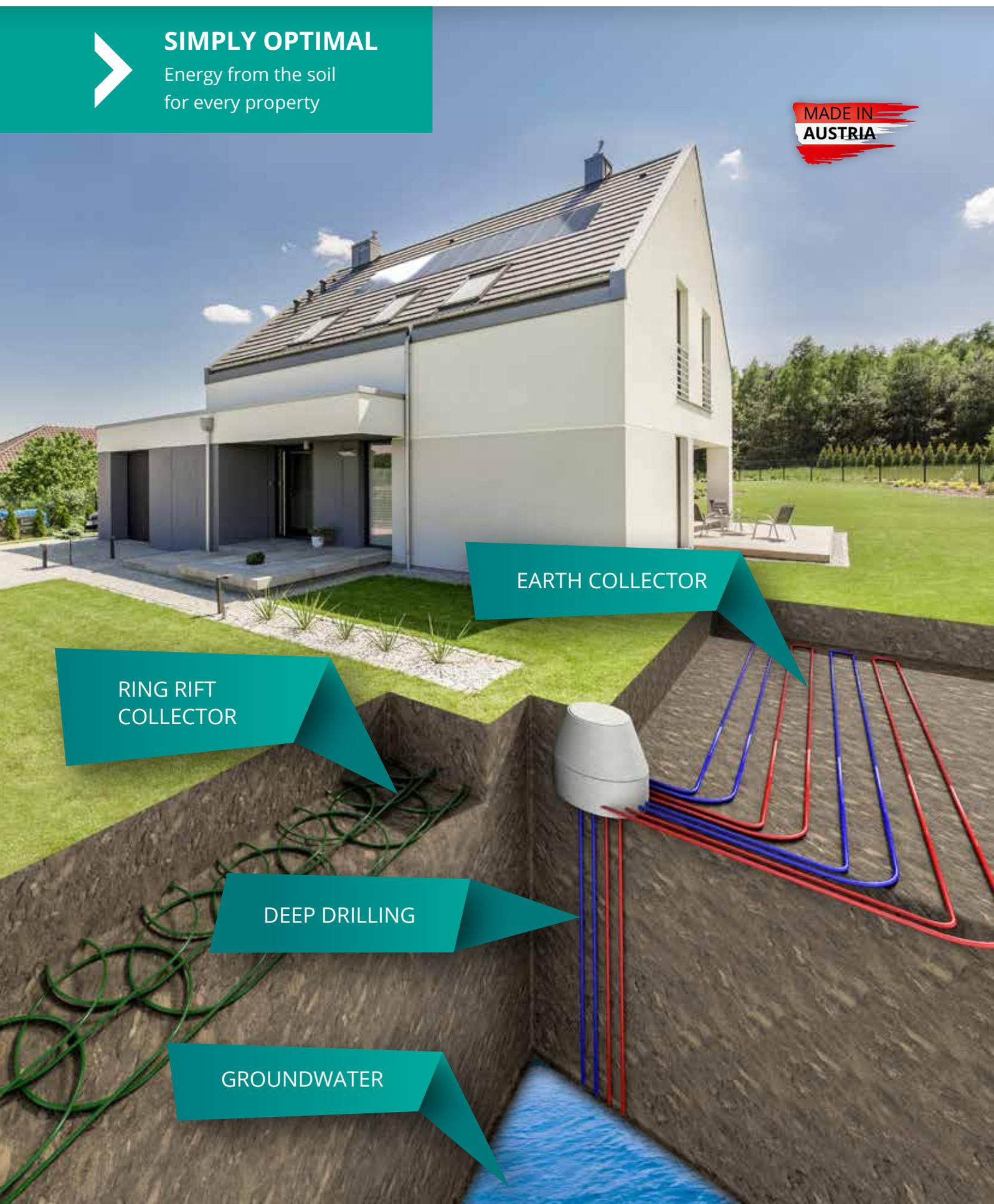
NHWP WITH GEOTHERMAL HEAT



SIMPLY OPTIMAL

Energy from the soil
for every property

MADE IN
AUSTRIA



EARTH COLLECTOR

RING RIFT
COLLECTOR

DEEP DRILLING

GROUNDWATER

GEOTHERMAL HEAT IS UNBEATABLE

at cooling & in combination with a residential ventilation

NATURE COOLING



SIMPLY COOL

Cooling for free with the OVUM nature cooling set

WELLCOOLING

The NHWP uses the chill of the soil for cooling the house in summer. That's a so-called passive-cooling because only the heating circuit- and the brine-pump are used for cooling. An algorithm developed by OVUM early recognizes the cooling demand and therefore cools especially smooth through the underfloor heating respectively the wall heater surface.

DRY & COOL



SIMPLY EFFICIENT

Preheating and dehumidifying the supply air by Dry&Cool

DEHUMIDIFYING AND PREHEATING OF THE SUPPLY AIR

With the Dry & Cool management the borehole or the collector can be used for preheating or cooling and dehumidifying the supply air. By that energy is saved and the living comfort is increased.

ADVANTAGES OF GEOTHERMAL HEAT AT A GLANCE:

- Betriebspunkte Long lifespan by optimized operating points
- Low running costs
- Cooling for free
- Deep drilling, soil or ring rift collector are investments for many generations
- No wasting of space in the garden or house

NHWP WITH AIR HEAT PUMP



SIMPLY ADAPTABLE

The ideal solution for indoor- or outdoor installation

MADE IN
AUSTRIA



AIR HEAT PUMP
AS OUTDOOR UNIT



AIRCUBE AIR HEAT PUMP

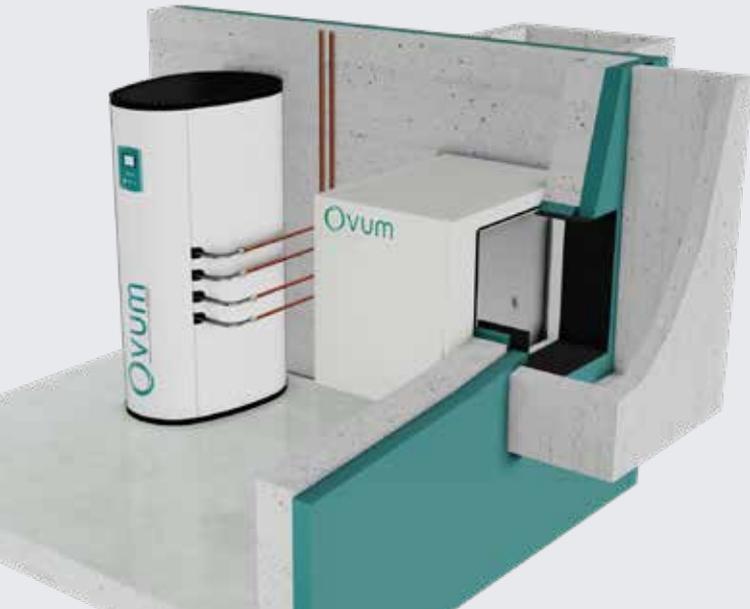
Use every advantage of the NHWP system solution in combination with a super silent, highly efficient air heat pump – a complete and harmonically coordinated heating centre consisting of a heat pump, a buffer tank, a freshwater system

and all necessary pumps. The NHWP uses the free environmental heat through the AirCube as outdoor- or indoor unit, stores it in the integrated domestic hot water- or heating buffer tank and provides it automatically to the building.

Lower heating costs thanks to the best PV-solution using photovoltaics electricity watt exactly at the right time.

The NHWP is the world champion in this matter and provides the best solution on the market. It's a ready to plug in-system with a big buffer tank and an intelligent controlling system ensures lowest heating costs for you.

INDOOR INSTALLATION



SIMPLY INVISIBLE

Integrated in the building space-saving and super silent

OUTDOOR INSTALLATION



SIMPLY SHAPELY

Maximum efficiency with a noise-optimized designer casing

OUTDOOR- OR INDOOR INSTALLATION

Every building has its own requirement. With the OVUM AirCube you can use all advantages in every situation no matter if as outdoor unit on the outside or as indoor unit within the building.

If the indoor unit is installed in a building corner, no additional air ducts are necessary because the air can be taken in and blown out directly through the openings in the building's outer wall.

SMART MANAGEMENT CONCEPT

Every OVUM AirCube is equipped with the Optimode-technology. Here the power output gets adjusted fully automatic to the heat requirement by the compressor speed and the fan power. Besides the outdoor temperature also day-/night cycles and the requirements according to the especially strict guidelines regarding noise in the night operation mode are taken into account.

The very low noise level of the AirCube can be decreased in the night additionally by the silent mode. The result is an efficient operating mode combined with an at the same time optimized noise level. Thus the OVUM AirCube provides the most efficient technology on the market.

Your Ovum NHWP competence partner:

OVUM Heiztechnik GmbH

Tirolerstraße 31 | A-6322 Kirchbichl

Tel: +43 5332/81238-0

E-Mail: office@ovum.at | www.ovum.at

SCOP 5,33*

1 kW current > 5,33 kW warmth



Up to 20kWh storage power through integrated thermal battery and forecasting technique.

TECHNICAL DATA

	NHWP 06S+	NHWP 12S+	AC08+ NHWP Speicher	AC12+ NHWP Speicher	AC16+ NHWP Speicher
Model	Brine/Water	Brine/Water	Air/Water	Air/Water	Air/Water
Heating performance*)	3,0-9,5 kW	6,0-14,0 kW	1,7-10,1 kW	2,5-12,12 kW	3,7-16,5 kW
SCOP**)	5,33	5,30	5,04	4,92	4,95
Thermo safe	480 ltr	680 ltr	480/680 ltr	480/680 ltr	480/680 ltr
Additional heating	2-6 kW	2-6 kW	2-6 kW	2-6 kW	2-6 kW
Freshwater system	✓	✓	✓	✓	✓
Constant-hot water technology	✓	✓	✓	✓	✓
Energy saving pump	✓	✓	✓	✓	✓
Mixing valve	✓	✓	✓	✓	✓
Residential ventilation management	✓	✓	✓	✓	✓
Cool & Dry-ventilation	Optional	Optional	-	-	-
Cooling	Optional	Optional	✓	✓	✓
Room thermostat management	✓	✓	✓	✓	✓
Autonomous-PV with TBattery ¹⁾	✓	✓	✓	✓	✓
Dimensions NHWP	B 810 x T 1130 H 1940 mm	B 900 x T 1300 H 1940 mm	siehe NHWP 06S+/12S+	siehe NHWP 06S+/12S+	siehe NHWP 06S+/12S+
Dimensions AirCube outdoor	-	-	B 1170 x T 805 mm H 1030 mm	B 1170 x T 805 mm H 1030 mm	B 1430 x T 815 mm H 1100 mm
Dimensions AirCube indoor	-	-	B 1200 x T 837 mm H 1036 mm	B 1200 x T 837 mm H 1036 mm	-
Minimum door width	620 mm	720 mm	720 mm	720 mm	-
Remote maintenance, cloud (optional)	✓	✓	✓	✓	✓

* B0W35, A2W35 | ** ...low temperature, climate A according to EN14825 (tolerance according to EN12900)

¹ optional