SINCE 1921
windhager
HEAT WITH VISION
TOMORROW´S ENERGY TODAY.

AIR/WATER
HEAT PUMP

AERO WIN

Evolution

3 TO 22 KW

FOR SINGLE-FAMILY AND MULTIPLE-FAMILY HOMES

JUST LIKE NATURE:
ULTRA QUIET.

AEROWIN
Evolution

YOUR SPECIALIST FOR INNOVATIVE HEATING SOLUTIONS

HEAT WITH VISION

The Austrian family-owned company Windhager has stood for high-quality heating appliances and reliable service for over 100 years. Our many innovative technologies have had a profound impact on the market in the past and we remain committed to continuously improving the power, efficiency and sustainability of our products. Our heat pumps, pellet boilers, wood boilers and wood chip boilers as well as our gas heating systems already meet the highest quality and environmental standards of tomorrow today. We will be consistently expanding our leading edge so that you can continue to enjoy sustainable heat with your Windhager heating system in the future – permanently, cost-efficiently and comfortably.

EFFICIENT HEATING & COOLING

Heating and cooling with one device – that only works with a heat pump. It provides cosy warmth in winter even at low minus temperatures and pleasant cooling on hot summer days. The AeroWIN Evolution uses a free and inexhaustible energy source for this purpose: air.

The heat extracted from the air is brought to a higher temperature level with the help of a compressor in the cooling circuit. The heating water is heated and distributed through the floor heating or radiators in the building. The heat is also available for heating water. When cooling, this process is reversed: Instead of extracting warm air from the environment, heat is extracted from the rooms and released to the outside air.

An air/water heat pump is highly efficient and very reliable when it comes to heating and cooling: About 80 percent of the energy is obtained from the ambient air, 20 percent through the use of electricity. If you are talking about green electricity, then a heat pump virtually has a CO2 neutral operation. When a photovoltaic system is integrated, you can heat and cool cleanly and more independently of energy suppliers.

Maximum efficiency with minimum operating costs for new constructions and refurbishments

Optimised private consumption of self-generated PV electricity

Ultra quiet operation thanks to owl wing fan and intellig ent power adjustment

POWERFUL ARGUMENTS FOR THE AEROWIN EVOLUTION

MAXIMUM EFFICIENCY WITH MINIMUM OPERATING COSTS FOR NEW CONSTRUCTIONS AND REFURBISHMENTS

The AeroWIN Evolution achieves flow temperatures of up to 62° C and has an impressive maximum energy efficiency class of A+++. Using just 1 kW of electricity, it achieves up to 5 kW of heat output.

OPTIMISED PRIVATE CONSUMPTION OF SELF-GENERATED PV ELECTRICITY

Thanks to the intelligent control of the AeroWIN Evolution, the electricity produced by the photovoltaic system can be optimally used for private consumption. The water is fed into the grid only if the hot water tank is charged and the house is comfortably warm or at a pleasant temperature.

ULTRA QUIET OPERATION

A number of technical details such as the slowly rotating fan with an owl wing design, the sound insulation, the generously dimensioned evaporator and the intelligent power regulation ensure ultra quiet operation. As a result, you and your neighbours will hardly notice that the heat pump is operating.

PREMIUM QUALITY MADE IN AUSTRIA

Years of experience and the high-quality processing of premium components ensure trouble-free operation for many years. The inverter technology of the AeroWIN Evolution ensures minimal wear.

STANDARD ACTIVE COOLING

With the AeroWIN Evolution, the heating system instantly becomes a cooling system – and as a standard feature at that. Via surface heating systems such as floor, wall or ceiling heating, the heat pump also ensures a pleasant indoor climate during the summer.

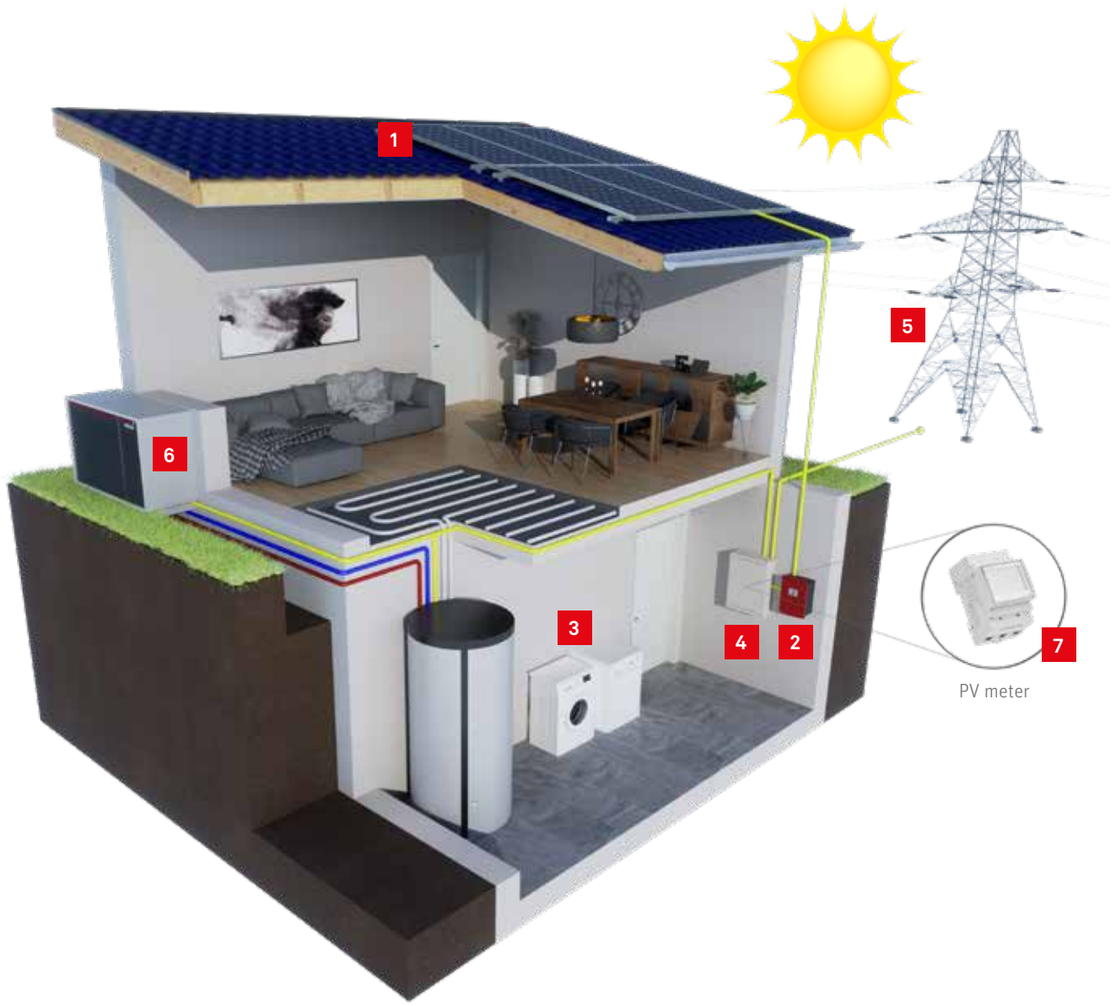
EASY AND COMFORTABLE TO OPERATE FROM ANYWHERE

No matter where you are, you can control your room temperature conveniently via a smartphone, tablet or PC. If you need, your installer can also diagnose an issue and assist you remotely. This saves time and travel costs.

INDEPENDENT AND SUSTAINABLE

EFFICIENCY THROUGH SUN AND AIR

The AeroWIN Evolution largely makes use of a free energy source. It draws up to 80 percent of the energy it needs from the air. By integrating a photovoltaic system, you can generate a large part of the energy required beyond that yourself. This not only allows you to heat and cool sustainably, but also to become less dependent on energy suppliers.



HOW DOES A PHOTOVOLTAIC SYSTEM WORK?

The heart of the system consists of the photovoltaic modules (1), which produce direct current from solar energy. The inverter (2) converts this into household electricity, which can then be used for household electricity consumers, e.g. the washing machine (3). Surplus electricity is fed back into the public power grid (5) via an electricity meter (4).

You can use this excess electricity even more efficiently to operate your heat pump (6). This is made possible by the use of a PV meter (7) (available from Windhager as an accessory). By means of a pulse interface, this meter transmits the information about the available excess energy to the heat pump. If the power exceeds a value that can be set via the control for a defined time, the excess energy operation of the heat pump is activated. In this mode, heat consumers request the adjustable set temperatures – which is higher as compared to normal operation. This helps you optimise the private consumption of your PV system and save cash.

1 **PV MODULE**
PRODUCTION OF DIRECT CURRENT FROM SOLAR ENERGY

2 **INVERTER**
CONVERSION FROM DIRECT CURRENT TO HOUSEHOLD CURRENT

3 **ELECTRICAL CONSUMERS**
USE OF PV ELECTRICITY

4 **CURRENT COUNTER**
GRID SUPPLY AND SURPLUS FEED-IN

5 **PUBLIC ELECTRICITY NETWORK**
TRANSPORT AND DISTRIBUTION OF ELECTRICAL ENERGY

6 **AIR/WATER HEAT PUMP**
HEATING, COOLING, WATER HEATING

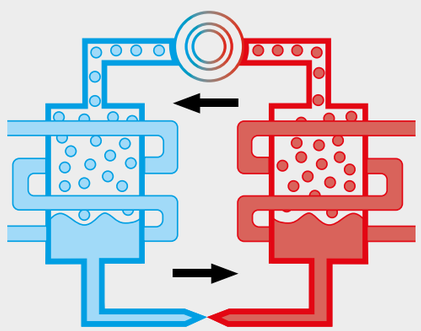
7 **PV COUNTER**
DETERMINING PV SURPLUS AND COMMUNICATING WITH HEAT PUMP

COOL ADVANTAGE

COMFORTABLE ROOM TEMPERATURES EVEN IN SUMMER

When the temperatures start to rise, heaters usually go on summer break – unless it can also be used for cooling, that is. The AeroWIN Evolution is efficient and environmentally friendly when it comes to ensuring comfortable room temperatures in your home – even in the summer. The original function of the device is reversed for this purpose. Instead of distributing hot water through your heating system as is the case with heating, the heat pump cools the water in the heating system, removing heat from the room. The room temperature can therefore be reduced by approx. 2 to 4 °C.

EFFICIENT AND
ENVIRONMENTALLY FRIENDLY
COOLING

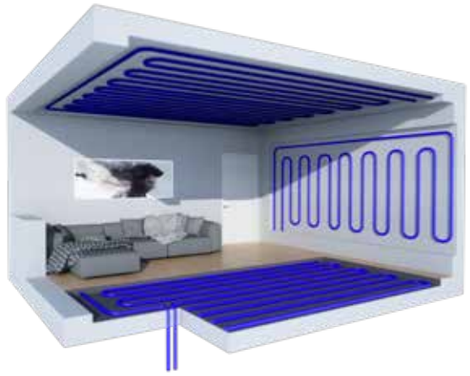


ACTIVE COOLING

THE HEATING CIRCUIT
IS REVERSED

Active cooling uses the process reversal function of your heat pump: Instead of extracting warm air from the environment and thus heating the rooms, it releases the heat from the rooms into the air. With active cooling, you can lower the room temperature by up to 4°C degrees.

The room can be cooled via surface heating systems, such as floor, wall or ceiling heating. This has several advantages: It is silent, does not create draughts and does not require any additional equipment. Ceiling cooling is the most effective, as the warm air rises and the cold air falls. Classic radiators are unsuitable for cooling due to their small surfaces.

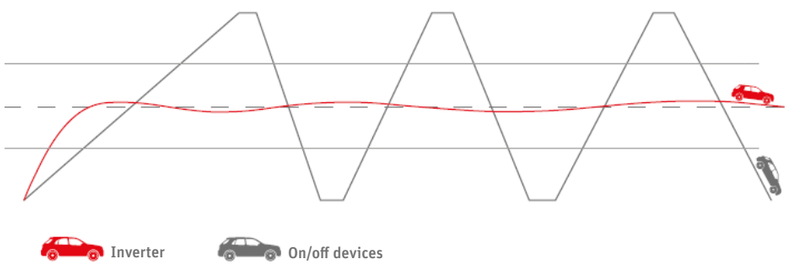


INVERTER TECHNOLOGY

PRECISE POWER ADJUSTMENT

Conventional heat pumps have only two operating states: on or off. Compared to a car, that would be either full throttle or standstill – not very efficient at all. In contrast, a heat pump with inverter technology always works with exactly the power that is currently required, continuously adapting to the individualised heat demand. This not only increases energy efficiency through reduced power consumption, but also ensures less wear and tear. In addition, noise emissions are kept to a minimum, as fans and compressors run on average at a lower power level and much more quietly as a result.

Inverter technology in comparison



PERFORMANCE AND EQUIPMENT VARIANTS

The AeroWIN Evolution is available in two versions, suitable for both new constructions and renovations. Choosing the model that is right for your individual requirements depends on a variety of factors, such as thermal insulation and the area to be heated. The following pages contain an overview for better orientation.

	AeroWIN Evo 9.6	AeroWIN Evo 13.9
Max. heat output (A-7/W35)	9,4 kW	13,2 kW
Additional electrical power as power reserve	6 kW	9 kW
Touch AP 440 operating module	✓	✓
Inverter technology [1]	✓	✓
Silent mode [2]	✓	✓
Active cooling	✓	✓
Cascadable	✓	✓

[1] For explanation, see previous page
[2] Operating mode in which the noise emissions are reduced once again

DIGITALLY AND INTELLIGENTLY NETWORKED

REMOTE ACCESS
CONTROL VIA WEB APPLICATION

No matter where you are, conveniently control your room temperature via a smartphone, tablet or PC and easily manage the room temperature in your home. If you need, your installer can also diagnose an issue and assist you remotely. This saves time and travel costs.

TOUCH OPERATING MODULE
AP 440

Control your heating system easily and conveniently via the touch control module included with the heat pump. All of the important settings for regulating your heat pump system can be adjusted with this module. It also measures the room temperature and humidity.

REMOTE CONTROL
OI 420

Use the remote control to change the operating mode or the set temperature of a heating circuit (+/- 2.5 °C). The remote control, which is available as an accessory, also detects the room temperature and humidity and can therefore be used to regulate heating and cooling.

THE RIGHT HEAT PUMP FOR YOUR HOME

How do you know which heat pump is the right one? The decisive factor here is not only the area to be heated but also the thermal insulation. We would like to give you some guidance using design examples we have chosen based on three different building types with an approximate determination of the heating load:

Buildings without special thermal insulation

Buildings with normal thermal insulation built before 1995

New constructions with good insulation

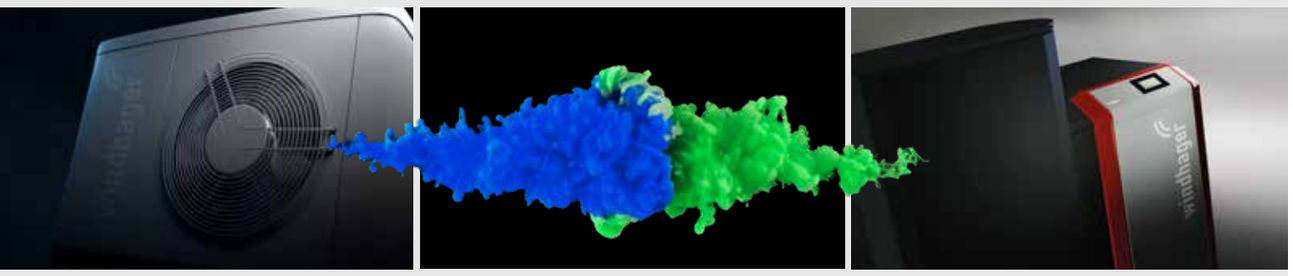
To choose the right model, we always recommend making an accurate calculation of your specific standard heating load.

HYBRID SOLUTIONS

AIR IN COMBINATION WITH PELLETS OR WOOD

The best of two technologies: For buildings with a higher heating load, Windhager offers hybrid solutions with pellet boilers or solid fuel boilers in combination with a heat pump. **Find out more at windhager.com**

Watch video



EQUIPMENT RECOMMENDATION ACCORDING TO BUILDING CLASS AND LIVING AREA

	Living area in m²							
Buildings without special thermal insulation	100	125	150	175	200	225	250	300
AeroWIN Evo 9.6								
AeroWIN Evo 13.9								
	Living area in m²							
Buildings with normal thermal insulation built before 1995	100	125	150	175	200	225	250	300
AeroWIN Evo 9.6								
AeroWIN Evo 13.9								
	Living area in m²							
New constructions with good insulation	100	125	150	175	200	225	250	300
AeroWIN Evo 9.6								
AeroWIN Evo 13.9								

... Use of this device type recommended

... Use of this device type possible, but other device types recommended

This is a rough calculation based on the following assumptions:

- Heating load of the building classes and conditions:
  - Older building without special thermal insulation: 120 W/m²
  - Buildings with normal thermal insulation built before 1995: 80 W/m²
  - New constructions with good insulation: 50 W/m²
- Low temperature application designed for 35 °C flow temperature
- Standard outside temperature: -13 °C
- Heating limit: 15 °C
- Bivalence point: <= -5 °C
- Water heating for 3 people (0.2 kW per person)
- No EVU blocking times

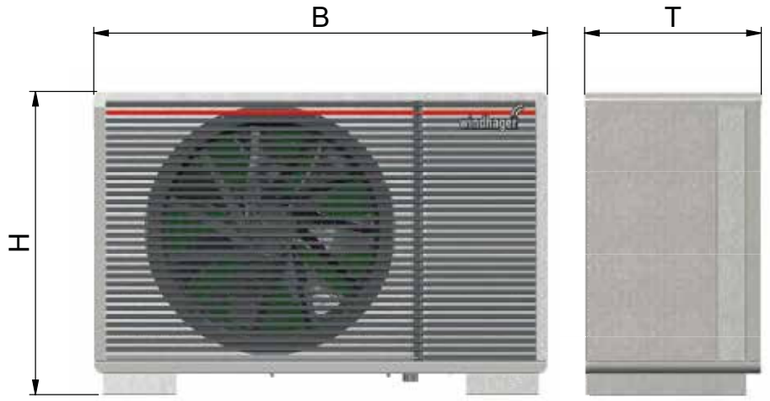
ATTENTION: To choose the right model, we always recommend making an exact calculation of your specific standard heating load.

AEROWIN EVOLUTION TECHNICAL DATA

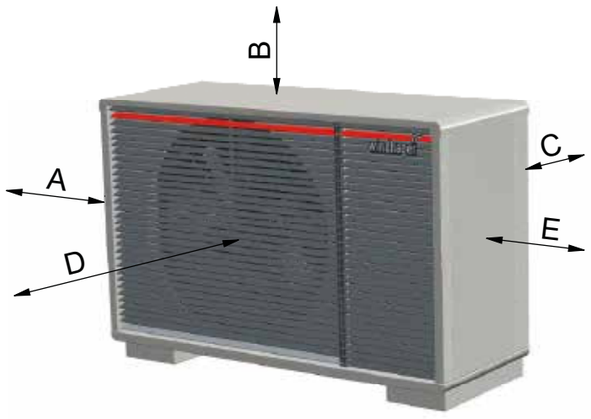
3–22 KW

AeroWIN Evolution packages			AeroWIN Evo 9.6 package	AeroWIN Evo 13.9 package
Package consisting of: Heat pump incl. Touch AP 440 operating module Additional electric heating with 6 or 9 kW 3-way valve with 1" or 5/4" Safety group			 AW 9 E ZH 6 UW 1 SGRP	 AW 13 E ZH 9 UW 1.25 SGRP
Heat output (min./max.)	A2/W35 A-7/W35	kW kW	1,9/12,1 2,8/9,4	2,7/17,0 4,1/13,2
Thermal output (EN 14511)	A2/W35 A-7/W35	kW kW	6,6 8,0	9,0 12,5
Coefficient of Performance, COP (EN 14511)	A2/W35 A-7/W35		4,6 3,2	4,3 3,2
SCOP (EN 14511)			4,95	4,57
Cooling capacity (min./max.)	A35/W7 A35/W18	kW kW	2,9/5,6 3,9/8,1	4,4/8,6 5,9/12,5
Cooling efficiency EER (max.)	A35/W7 A35/W18		2,5 3,7	2,6 3,7
Sound power level (EN 12102)		dB (A)	45	50
Sound power level max.		dB (A)	60	62
Operating limit, heat source min.		°C	-22,5	-22,5
Operating limit, heat source max.		°C	62	62
Energy efficiency class for average climate (W35/W55)			A+++/A+++	A+++/A+++
Refrigerant			R452B	R452B
Global Warming Potential of the refrigerant (GWP)			676	676
Dimensions (height x width x depth)		mm	1040 x 1555 x 605	1205 x 1750 x 675
Weight		kg	233	298

DIMENSIONS AND SAFETY DISTANCES



	Unit	AeroWIN Evo 9.6	AeroWIN Evo 13.9
Height	mm	1.040	1.205
Width	mm	1.555	1.750
Depth	mm	605	675
Weight	kg	233	298



A ..... 400 mm
B ..... 400 mm
C ..... 400 mm
D ..... 3.000 mm
E ..... 800 mm

OUR WINDHAGER PRINCIPLES

Accurate advice from our expert PARTNERS

Do you have question about our products? Our competence PARTNERS are experienced heating specialists who work closely with us, guaranteeing you the best possible service.

Quick and professional customer service

The heating professionals in our extensive customer service network provide you with fast, competent and solution-oriented support – day in and day out, all year round.

MARKTTEST QUALITY AWARD MARKETINSTITUT

EXPERIENCE ENERGY UP CLOSE: **IN THE WORLD OF WINDHAGER**

Marvel – play – try out, our spectacular experience and exhibition world the World of Windhager in Seekirchen offers 22 stations for you to discover the power of fire and innovative heating solutions up close. An exciting experience with the energy of tomorrow – for the whole family.

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HEAT WITH VISION

TOMORROW´S ENERGY TODAY.

Your expert PARTNER

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