

Efficiency at its most beautiful

High-end heat pump | EcoTouch 5029 Ai Inverter



INVERTER
TECHNOLOGIE by WATERKOTTE ©



Flexible and efficient with inverter technology



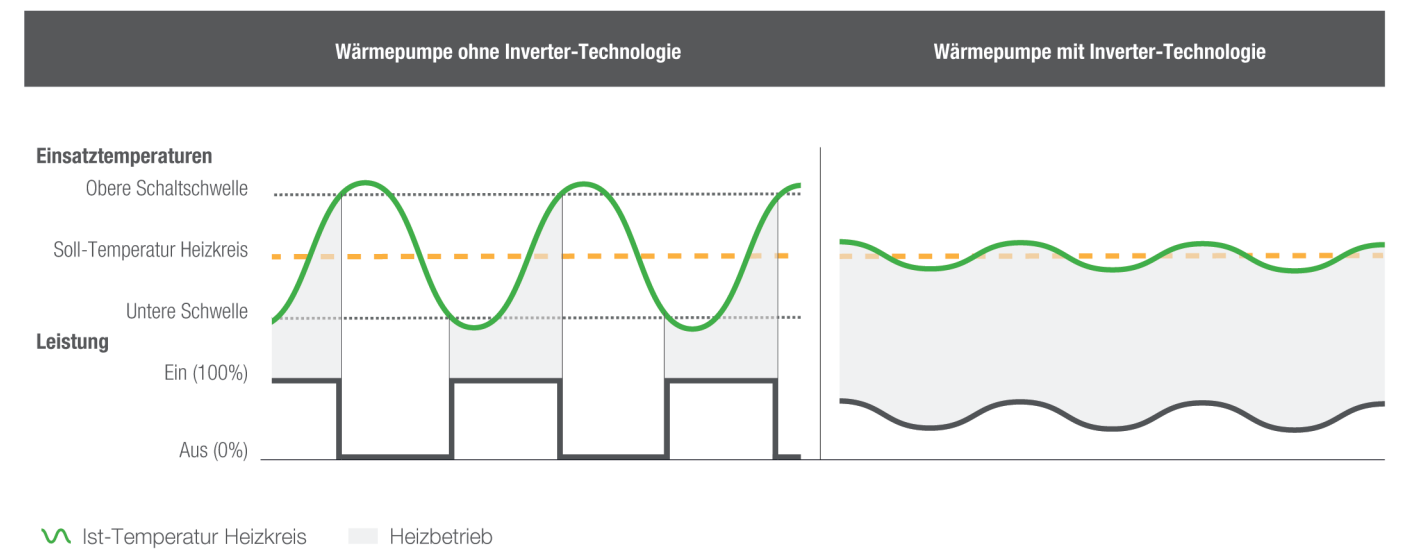
Partial load advantages of inverter compressors

Inverter-controlled compressors operate on partial load and only at maximum load on a few days a year. Here the inverter heat pumps achieve high COP efficiency figures. Due to the lower compressor speed, quieter system operation is also guaranteed.

Optimal usage of own electricity

The variable speed regulation makes it possible to use PV power continuously. If electricity production is low, the power of the heat pump can be regulated. In this way the portion of own electricity is increased and therefore the cost-effectiveness of the PV system.

Inverter technology compared



Source temperature and heat output

Temperature differences at the heat source affect the heat output and efficiency of heat pumps. On systems without inverter technology corresponding to the state-of-the-art in the low power range, the heat output increases with increasing source temperature.

Inverter technology a must for air

Unlike the stable temperatures of geothermal energy and groundwater, the temperature fluctuations of the air of -15 °C to 30 °C must be overcome. The inverter technology ensures optimal efficiency at any ambient temperature.

Continuous stepless power adjustment

Heat pumps with modern inverter technology have special compressors with power regulation. Here the inverter continuously adjusts the compressor speed to the current heat demand or the target temperature for the heating circuit.

Comparison of inverter technology

Inverter technology permits the exact achievement of the target temperature. In comparison to heat pumps with constant speed, temperature fluctuations as well as compressor switch-on and switch-off cycles (on-off operation) are reduced.

Use in ground source heat pumps - a frank word

Geothermal heat pumps are subject to significantly lower fluctuations in operation due to the stable heat source temperature. Inverter technology is not essential. Its use in heat pumps is to be considered based on the project requirements.

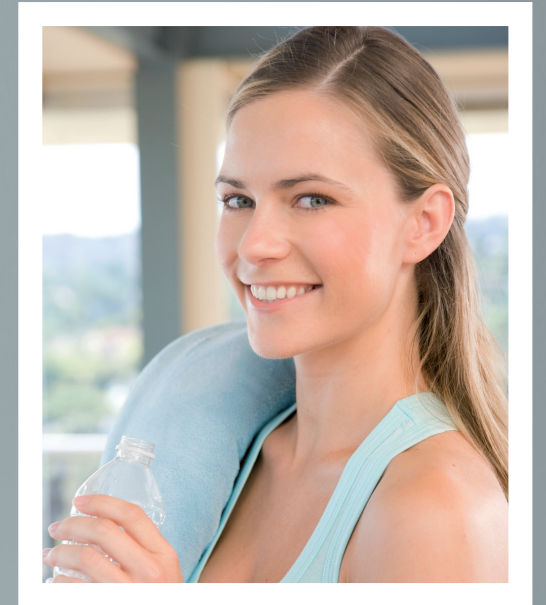
The new generation from WATERKOTTE

After the successful use of inverter technology in air source heat pumps, WATERKOTTE is now setting new standards: The EcoTouch Ai1 Compact and EcoTouch 5029 Ai INVERTER series are the new generation of WATERKOTTE geothermal heat pumps.

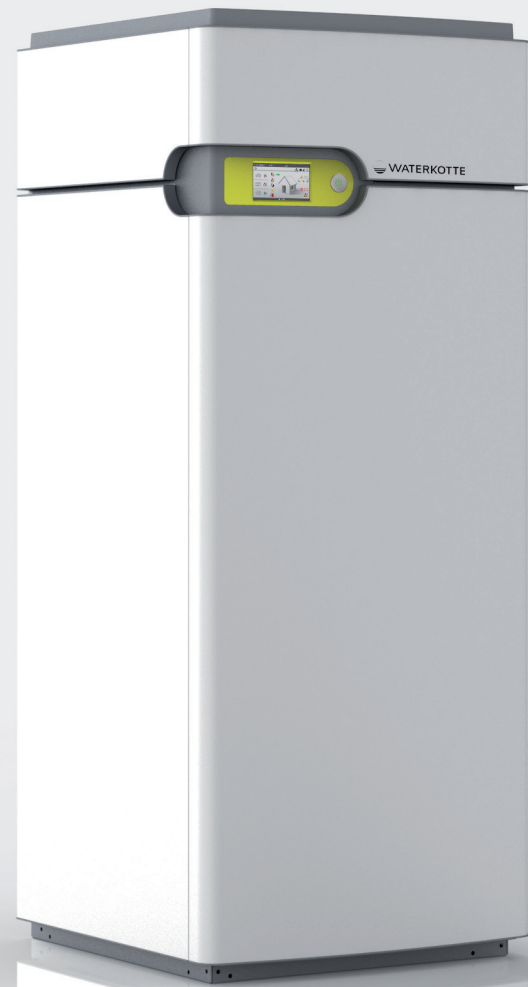


So simple and so good looking.

"In our home the heating is now beside the sauna. The heat pump looks really good, no comparison with the old boiler. It is also easier to operate. I can control it using my mobile from anywhere."



EcoTouch 5029 Ai Inverter | Power range from 2 – 14 kW



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A+++ : Energy-efficient combined system (incl. WWPR II controller) heating W10/W35. Variations within the series possible.

High performance with minimal noise emissions

The EcoTouch 5029 Ai series as a version with inverter-controlled compressor covers a power spectrum from 2 – 14 kW. With COP values up to 4.9, the compact heat pump is as quiet as a refrigerator.

Flexible thanks to inverter technology

With the model variant ET 5029 Ai Inverter, power can be obtained to suit demand. The stepless power adjustment achieves the best efficiency figures in every operating condition and an optimised electricity consumption.

Space-saving compact heating system

By connecting a water tank from the EcoStock series, the EcoTouch 5029 Ai Inverter becomes a complete heating system. The space requirement at less than 0.38 m² is ideal for a space-saving installation.

Comfortable cooling function

With the cooling function, the low temperature in the ground is transferred to the heating system. In this way the rooms in the building remain pleasantly cool even with high outdoor temperatures.

Features

- Heat pump for higher requirements
- Inverter-controlled power range 2 – 14 kW
- Colour 4.3" touch display
- Integrated web interface for app control
- Intuitive control software EasyCon
- Central power switch
- Sensor system with numerous sensors
- COP counter and display of all operating data
- Domestic hot water heating, external tank provided by the customer
- Integrated electrical heating element 6 kW
- Chlorine-free refrigerant R410A without ozone depletion
- Speed-controlled circulation pumps of efficiency class A
- Integrated vibration damper Silenter®
- Easy to service unit design
- Connections installed on rear
- Unit dimensions (W x H x D): 600 x 1470 x 633 mm

Optional features

- Connection set
- Natural cooling (NC)
- Controller expansion for:
 - Second heating circuit e.g. for swimming pool heating
 - Use of thermal solar energy
 - 2 additional mixer circuits

Highlights

- Low operating costs due to COP values up to 4.9
- Power reserves can be used efficiently
- Touch display with innovative EasyCon software
- Smartphone control via EasyCon Mobile
- Fully integrated into the Internet
- Indication of current COP value
- Housing in high gloss white or stainless steel look
- Optimised space requirement 0.38 m²

EasyCon Software | The new type of control



Touch symbols in colour

As the name suggests, EasyCon makes the operation of your heat pump even easier. The software uses simple, self-explanatory symbols like on a Smartphone. The symbols on the colour touch display of the EcoTouch units require only a light touch.

This is as easy as it gets

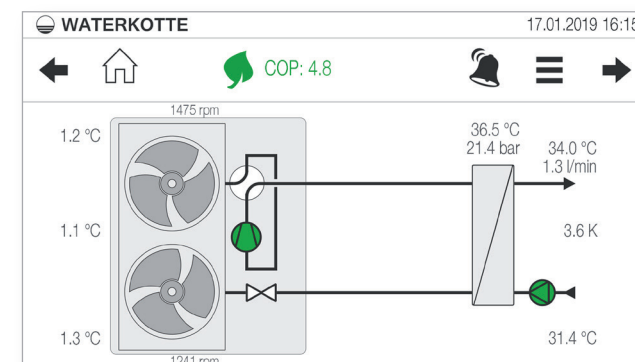
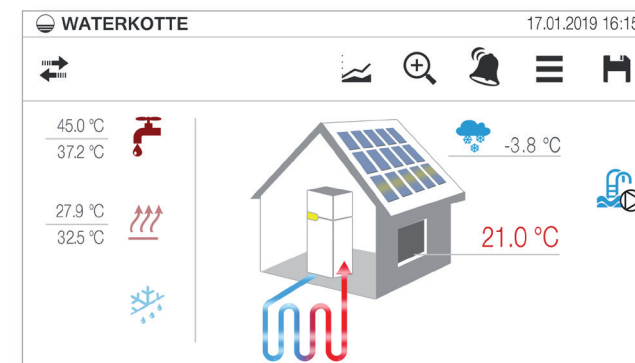
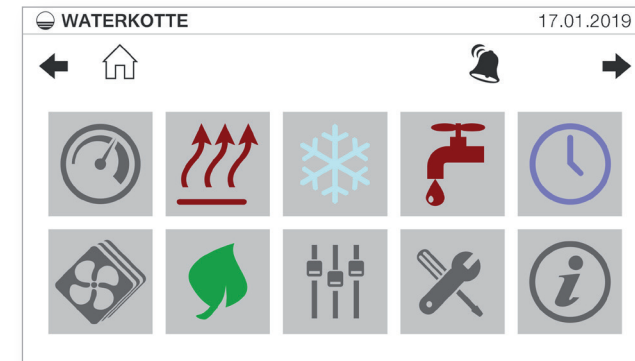
The symbols, also referred to as icons, are self-explanatory. You therefore always have quick access to all important functions of the unit. Setting the desired temperature or timer program is child's play. Operating a heating system without the operating manual has never been easier.

Comprehensive data evaluation

On the large colour display you can evaluate a variety of data. The actual consumption data, performance data and operating states are clearly displayed in graphics. This is made possible by the data acquisition by the sensor system and the mathematical analysis by EasyCon.

Fully integrated into the Internet

The particularly advanced feature of EasyCon, in addition to the modern user Interface, is its easy integration into the network. As a standard, all heat pumps in the EcoTouch series are connected to the network via the touchscreen. The free app EasyCon Mobile allows you to control your heat pump even while you are on the move.



Features of the control unit

- Touch Display, 4.3"
- Icon orientated user interface that makes it easy to use, configure and monitor
- Control via Smartphone app
- USB Port integrated as standard to permit upgrades and uploading of logged data
- Network Ethernet Port for remote access

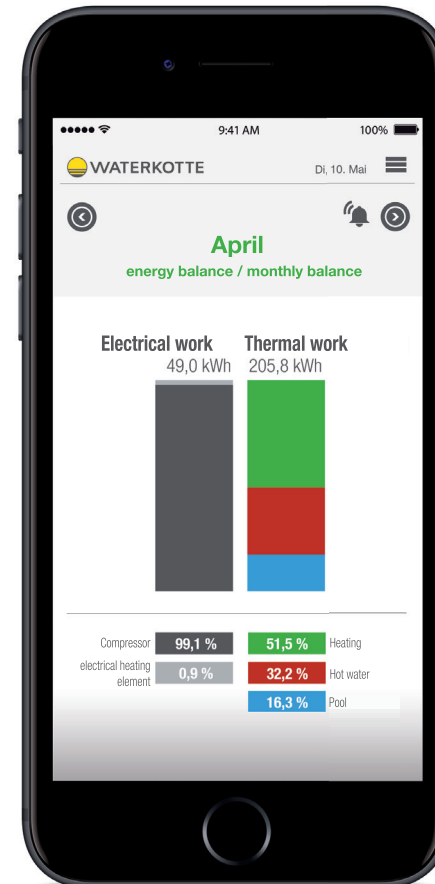
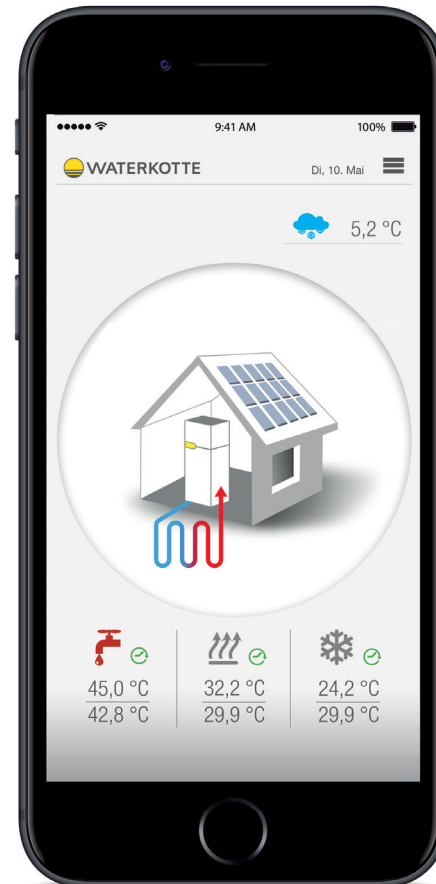
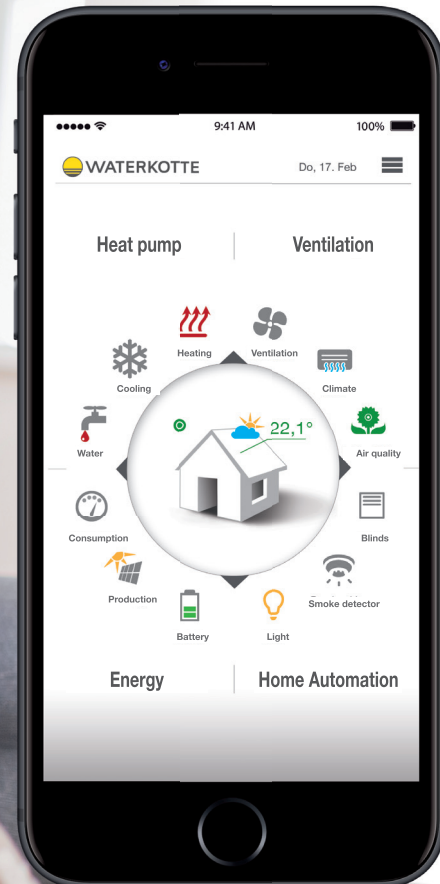
Software

- Modern Control technology
- Efficient automation of heating and cooling
- Additional Control Functions included as standard:
 - Integration of Solar Thermal
 - Integration of Photovoltaics (PV)
 - Second Heating Circuit
 - Three additional Weather Compensated (Mixing Circuits)
- Energy Monitoring included as standard
- Advanced Bivalent control possibilities
- Remote Control via EasyCon mobile app
- Automatic Screen Saver

Easy to use

- Intuitive EasyCon touch control interface
- System state clear to see
- Touch shortcuts to main system functions
- Dynamic display of refrigerant circuit
- Automatic email failure messages
- Graphical display of temperatures (current and historic)
- Continuous display of energy performance (SPF / COP)
- Individual timer program and vacation mode
- Internet Connection and Web interface included as standard

EasyCon Mobile | Control via Internet



Features

- Control and monitoring software for heat pumps
- Multilingual full version
- Intuitive menu structure
- Available as Apple and Android app
- Can be installed on Smartphones and tablet PCs
- Expandable, e.g. for living area ventilation

Technical requirements

- Available LAN network
- Existing Internet access via provider
- Router with a spare RJ45 connection
- WATERKOTTE EcoTouch series heat pump

Highlights

- Free control software
- Availability of all operating functions
- Continuous system overview
- Comprehensive display of measured data
- Active system messages from the heat pump
- System app can also be used for other units

Quick and convenient via Internet

EasyCon Mobile allows you convenient access to your heat pump at any time via Smartphone or tablet computer. This is made possible by an Internet connection that you can establish with your heat pump via the application and a web interface.

Free of charge and easy to install

EasyCon Mobile is available free of charge as an Apple or Android app for your Smartphone or your tablet computer. Simply download from Internet and install. Then enter your heat pump ID, and you are connected.

Control your heat pump from anywhere

The menu structure of the App is like the control software that is installed on your heat pump. This allows immediate and intuitive navigation. With the software you are able to send mobile control commands, or check data evaluations.

More ease of use and less costs

EasyCon Mobile allows you to control your heat pump from anywhere. This results in real ease of use. If, for instance, you are on your way home from a holiday, you can already turn up the heat. Saving costs has never been so much fun.



Technical data | EcoTouch 5029 Ai Inverter

EcoTouch 5029 Ai Inverter with R410A		5010.5	5015.5 Ai
Heat source groundwater¹⁾			
Heat output (W10/W35)	kW	11.2	13.9
Power consumption	kW	2.1	2.7
Coefficient of performance (COP) at W10/W35		5.9	6.0
Max. heat output mono-energetic operation (W10/W35, full power)	kW	17.2	19.9
Coefficient of performance (COP) at W10/W35, full power		5.6	5.6
Space heating energy efficiency class		A++	A++
Space heating energy efficiency class of the package		A+++	A+++
Groundwater flow rate	m ³ /h ($\Delta T=3K$)	2.4	3.3
Groundwater flow rate, minimum	m ³ /h	1.2	1.6
Heating water flow rate	m ³ /h ($\Delta T=5K$)	1.7	2.4
Operating limit		W10/W63	
Heat source ground			
Heat output (B0/W35)	kW	7.6	10.5
Power consumption	kW	1.8	2.6
Coefficient of performance (COP) at B0/W35		4.8	4.9
Max. heat output mono-energetic operation (B0/W35, full power)	kW	13.6	16.5
Coefficient of performance (COP) at B0/W35, full power		4.6	4.5
Space heating energy efficiency class		A++	A++
Space heating energy efficiency class of the package		A+++	A+++
Heat source flow rate	m ³ /h ($\Delta T=3K$)	1.9	2.5
Heating water flow rate	m ³ /h ($\Delta T=5K$)	1.3	1.8
Operating limit		B-5/W60; B0/W63	
Compressor		Rotary piston inverter	
Refrigerant		R410A	
Sound power at B0/W55	dB(A)	39.3	39.6
Electrical data			
Electrical power supply inverter/compressor	V, AC, Hz	230,1,50	
Control voltage	V, AC, Hz	230,1,50	
Electrical power supply electrical heating element	V, AC, Hz	230,1,50 / 400,3,50	
Electrical heating element	kW	6	
Max. operating current	A	12	16
Max. power consumption electrical heating element 3x400 V (1x230 V)	A	8,7 (26,1)	
Control fuse on site, compressor	A	B16A	B20A
Control fuse on site	A	B10A	
Main fuse, electrical heating element 3x400 V (1x230 V)	A	B16A (B32A)	
Dimensions, weights, connections			
Weight	kg	183	
Charge volume, refrigerant charge, R410A	kg	1.9	2.7
Heating connections		Flat-sealing G1¼ „a / G1¼ „a	
Dimensions W x H x D	mm	600 x 1470 x 633	

Subject to technical changes. Tolerances as per EN12900, EN 14511 and EN 12102 apply.

¹⁾ Groundwater source heating is to be used with an intermediate circuit, for solutions, please refer to our product range. Our performance data are based on this system configuration.



WATERKOTTE GmbH

Gewerkenstrasse 15
D-44628 Herne
Tel.: +49 (0) 23 23 | 93 76 - 0
Fax: +49 (0) 23 23 | 93 76 - 99
Service Tel.: +49 23 23 | 93 76 - 350
info@waterkotte.de
www.waterkotte.de

WATERKOTTE Schweiz AG

Oberdorfstr. 37
CH-1735 Giffers
Tel.: +41 (0) 26 684 82 40
Fax: +41 (0) 26 684 82 41
info@waterkotte.ch
www.waterkotte.ch

WATERKOTTE Austria GmbH

Carolinenstrasse 10
A-9073 Klagenfurt-Viktring
Tel.: +43 (0) 463 29403-0
Fax: +43 (0) 463 29403-018
wouk@waterkotte.at
www.waterkotte.at