

Efficiency at its best

High-end heat pumps | EcoTouch Ai1 Geo



EcoTouch Ai1 Geo | Power range from 6 – 18 kW

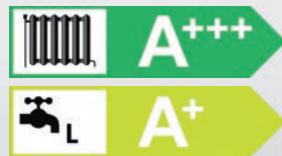


reddot award 2016
winner



product
design award

2013



Features

- Compact geothermal heat pump
- 4.3 inch colour touch-display
- Integrated web interface for remote monitoring
- Intuitive control software EasyCon
- Central power switch
- Sensor system with numerous sensors
- COP counter and display of all operating data
- Domestic hot water tank made of stainless steel with 204-litre capacity
- Automatic Legionella protection circuit
- Chlorine-free refrigerant R410A without ozone depletion
- Speed-controlled circulation pumps of efficiency class A
- Integrated electrical heating element 6 kW
- Encapsulated thermobox with special sound insulation
- Integrated vibration damper Silenter®
- Modular design for optimised transport and installation
- Easy to service unit design
- Connections installed on rear
- Unit dimensions: (W x H x D) 600 x 1993 x 633 mm

Optional features

- Connection set
- Starting current damping (400 V)
- Controller expansion for:
 - Second heating circuit e.g. for swimming pool heating
 - Use of thermal solar energy
 - Additional mixer circuits

Highlights

- Low operating costs due to COP values up to 5.1
- Touch display with EasyCon software
- Fully integrated into the Internet
- Smartphone control via EasyCon Mobile
- Indication of actual COP value
- Silenter® vibration damper
- Multiple award winning design
- Housing in high gloss white or stainless steel look
- Reduced space requirement of 0.38 m²

A+++ and A+: Energy efficiency class combined system (incl. WWPR II controller) heating W10/W55 and DHW production. Variations within the series possible.

Completely high-end

The Ai1 from the EcoTouch series caused uproar on its appearance. No wonder - as the best performance figures, the high-quality features, latest control technology and the multi-award winning design impress. What more could you want?

Control like a smartphone

The touch-display with intuitive EasyCon software is a real innovation. In this way operation is child's play. The Ai1 is connected to the Internet by the web interface and can be controlled while you are on the move.

Powerful, efficient and quiet

With COP values of up to 5.1, the Ai1 is one of the most cost-effective heat pumps worldwide. The energy-saving-ly controlled power reserves are up to 18 kW. The vibration damper Silenter® absorbs noise almost completely.

Too attractive for a services room

The Ai1 has received a number of awards. As such the Ai1 with its attractive design and the optimised housing dimensions can be integrated very well into your living area. It looks so good that you want to see it.

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

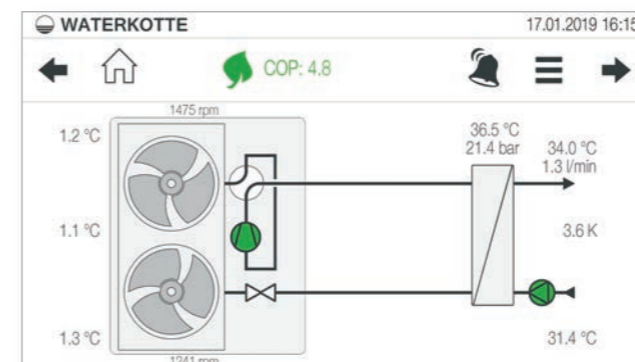
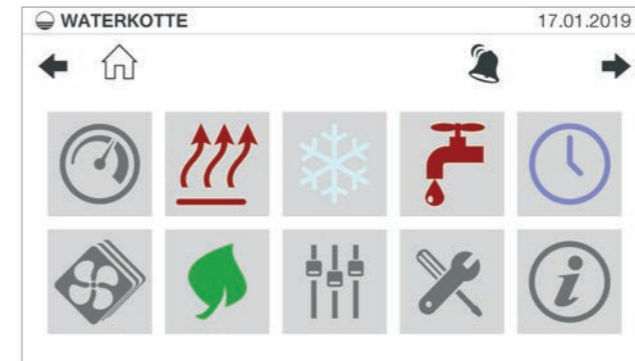
The symbols, also referred to as icons, are self-explanatory. You therefore always have quick access to all important functions of the unit. Setting the desired temperature or timer program is child's play. Operating a heating system without the operating manual has never been easier.

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

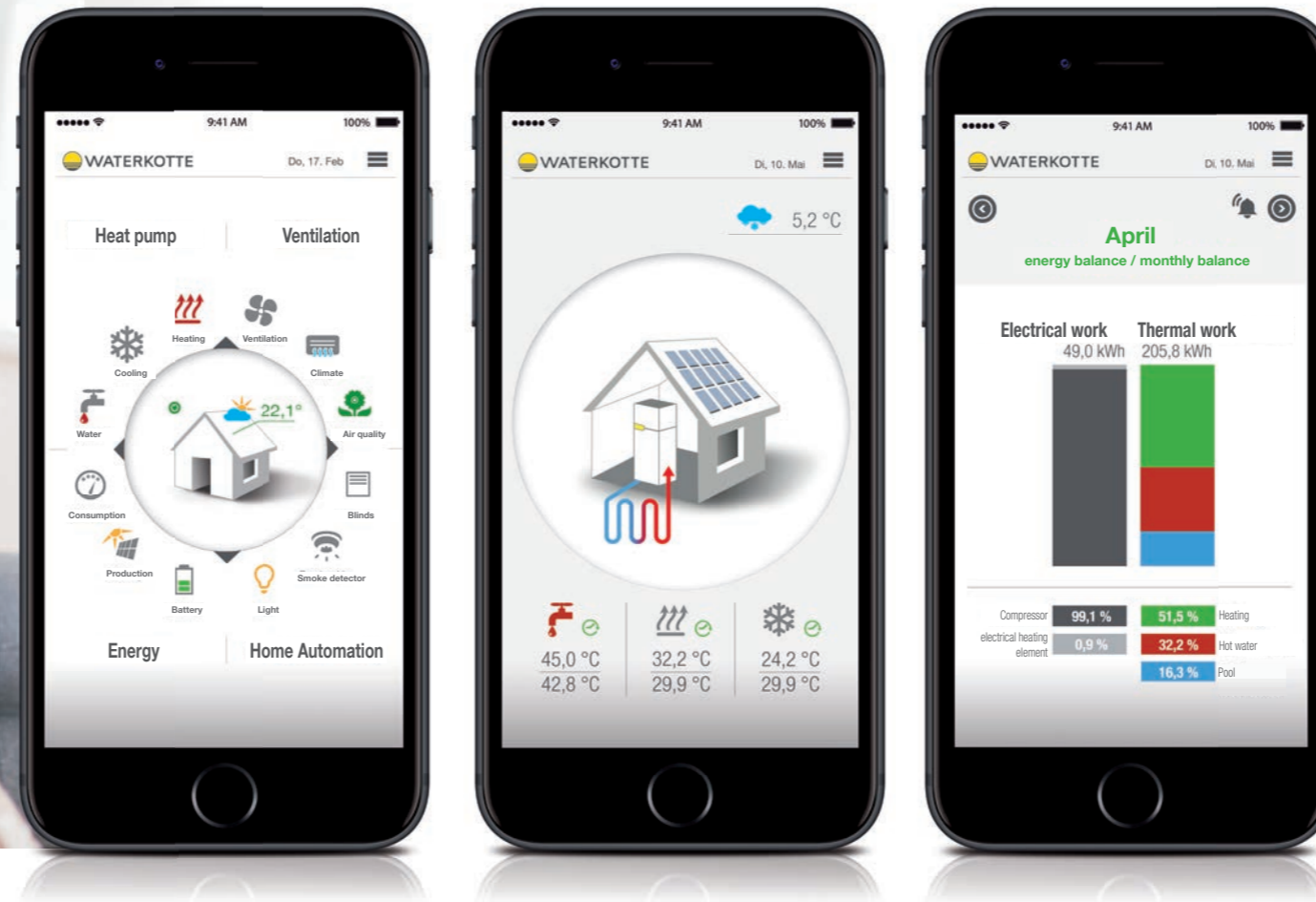
Software

- 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 app control



Features

- Control and monitoring software for heat pumps, living area ventilation, energy storage and building services
- 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 products in the EcoTouch series
- WATERKOTTE RemoteBox / SmartBox

Highlights

- Free control software
- Continuous system overview
- Comprehensive display of measured data
- Active system messages from the heat pump

Quick and convenient via Internet

With the EasyCon applications for mobile control, you can access your WATERKOTTE products via Smartphone or tablet. This is made possible by an Internet connection that you can establish with your heat pump via the app 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.

Controlling your heat pump on the move

The menu structure of the applications for mobile control 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

Your WATERKOTTE products can be controlled on the move using the EasyCon applications. This results in real ease of use. You can switch on your heating very easily from the sofa using the mobile control. Saving costs has never been so much fun.



Technical data Ai1 EcoTouch Geo with R410A		5006.5	5008.5	5010.5	5013.5
Heat source groundwater ¹⁾					
Power cons./output W10/W35	kW ¹⁾	1.3/8.1	1.6/10.5	2.1/14.1	2.8/18.0
Coefficient of performance (COP) at W10/W35		6.4	6.5	6.5	6.0
Space heating energy efficiency class/water heating energy efficiency class load profile L		A+++ / A+	A+++ / A+	A+++ / A+	A+++ / A
Space heating energy efficiency class of the package ³⁾ /water heating load profile L		A+++ / A+	A+++ / A+	A+++ / A+	A+++ / A
Groundwater flow rate	m ³ /h ($\Delta t=3K$)	2.0	2.6	3.4	4.3
Groundwater flow rate, minimum	m ³ /h ($\Delta t=6K$) ⁴⁾	1.0	1.3	1.7	2.2
Heating water flow rate	m ³ /h ($\Delta t=5K$)	1.4	1.8	2.4	3.0
Operating limit		W10/W63			
Ground source heating					
Power cons./output B0/W35	kW ¹⁾	1.3/6.0	1.6/7.9	2.1/10.7	2.7/13.8
Coefficient of performance (COP) at B0/W35		4.7	4.9	5.1	5.0
Space heating energy efficiency class/water heating energy efficiency class load profile L		A++ / A	A++ / A	A++ / A	A++ / A
Space heating energy efficiency class of the package ³⁾ /water heating load profile L		A++ / A	A++ / A	A++ / A	A++ / A
Heat source flow rate ⁵⁾	m ³ /h ($\Delta t=3K$)	1.5	2.0	2.7	3.5
Heating water flow rate	m ³ /h ($\Delta t=5K$)	1.0	1.4	1.8	2.4
Operating limit		B-5/W60; B0/W65			
Max. power consumption HS pump	W	75			
Max. power consumption heat pump	W	75			
Compressor		Fully hermetic scroll			
Sound power at B0/W35	dB(A)	43	44	45	45

Electrical data for motor version 400 V / 3 AC / 50 Hz (version 1 x 230 V, 50 Hz)

Starting current (unreduced)	A	28 (60)	43 (83)	51.5 (108)	62 (130)
Starting current soft start	A	14 (45)	22 (45)	26 (45)	31 (45)
Max. operating current	A	4.8 (12.8)	6.2 (17.1)	7.4 (22.8)	9.7 (27.9)
Main fuse, compressor (provided by customer)		C16A (C16A)	C16A (C20A)	C16A (C25A)	C16A (C32A)
Control fuse (provided by customer)		B10A	B10A	B10A	B10A
Electrical heating element	kW	6			

Filling capacities, dimensions, weights, connections

Unit weight, not including tank filling	kg	208	217	233	225
Weight tank module, not including trim	kg			65	
Weight trim	kg			35	
Weight hydraulic module, not including trim	kg	108	117	123	125
Connections: Heat source / use		Flat-sealing R 1 1/4" o / R 1 1/4" o			
Dimensions W x H x D	mm	600 x 1993 x 633 (+ 35 mm connections)			
Hot water tank	l	204			
Connections hot water tank		G 3/4" i			

Subject to technical changes. Tolerances as per EN 12900, 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. ²⁾ Medium-temperature application, average climate conditions ³⁾ On the combined system the WATERKOTTE WWPR controller class III was taken into account (without room temperature sensor). ⁴⁾ At W10/W35 and $\Delta T=6K$. ⁵⁾ Heat source (70 % water + 30 % ethylene glycol).


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