

# Efficiency at its best

High-end heat pumps | EcoTouch Ai1 Air LC Split



\* Modelle 5011.5, 5015.5 bei A7/W35, COP 4,5 bei (A2/W35)

# EcoTouch Ai1 Air LC Split | Power range from 3 – 19 kW



A++ and A: Energy-efficient combined system (including, WWPRs II controller) heating W35 and DHW preparation. Variations within the series possible.

## High quality complete solution

The EcoTouch Ai1 Air LC Split uses air as a heat source. The unit offers a complete solution for low to medium power requirements in a split design. The high-grade full equipment leaves nothing to be desired.

## Flexible performance demand

The compressor performance is adapted to the required heat in the best possible way by means of inverter technology. As a result optimal efficiency and low operating costs are achieved at any time with considerable power reserves.

## Top rated technical values

The technical values of the Ai1 Air LC Split are particularly convincing. The COP of 5.0 is outstanding and confirms the high efficiency of the system. This reduces your operating costs to a minimum.

## Robust and durable

The new outdoor unit achieves the highest efficiency figures: Flow temperatures of 58 °C are possible even at outdoor temperatures of -15 °C. High-quality components ensure reliable operation for decades.

## Features indoor unit

- Air source heat pumps indoor unit
- Colour 4.3" touch display
- Integrated web interface for app control
- Intuitive control software EasyCon
- Hot water tank with 204-litre capacity
- Automatic Legionella protection circuit
- Integrated electrical heating element 6 kW
- Integrated flow rate measurement
- Integrated expansion tank (heating)
- Integrated safety valve (heating)
- Pressure sensor in the heating circuit
- Speed-controlled circulation pump, efficiency class A
- Connections installed on rear
- Unit dimensions (H x W x D): 600 x 1993 x 633 mm

## Outdoor unit features

- Special insulation for noise reduction
- Integrated inverter controller
- Weather-resistant housing
- Speed-controlled fans
- Speed-controlled scroll / double rotary piston compressor
- Electronic expansion valve
- Defrosting process: Circulation reversal using 4-way valve
- Special pipe routing in the evaporator to avoid icing
- Active cooling due to reversible refrigerant circulation
- Liquid separator in the cooling circuit
- Optimised space requirement 0.31 m<sup>2</sup>

## Optional features

- Connection set
- Controller expansion for:
  - Second heating circuit e.g. for swimming pool heating
  - Use of thermal solar energy
  - Additional mixer circuits

## Highlights

- Touch display with innovative EasyCon software
- Low operating costs due to COP values up to 5.0
- Smartphone control via EasyCon Mobile
- Housing in high gloss white or stainless steel look

# 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

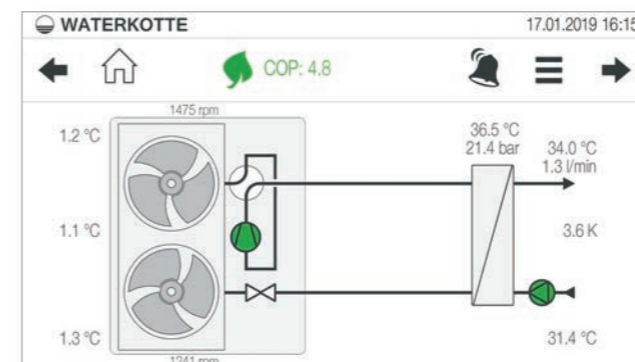
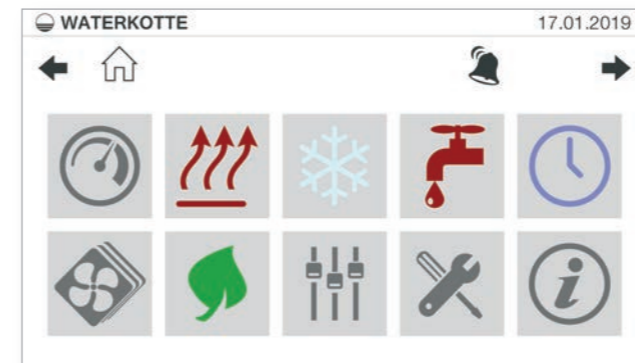
The symbols, also referred to as icons, are self-explanatory. You therefore always have quick access to all important functions of the unit. Setting the desired temperature or timer program is child's play. Operating a heating system without the operating manual has never been easier.

## 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

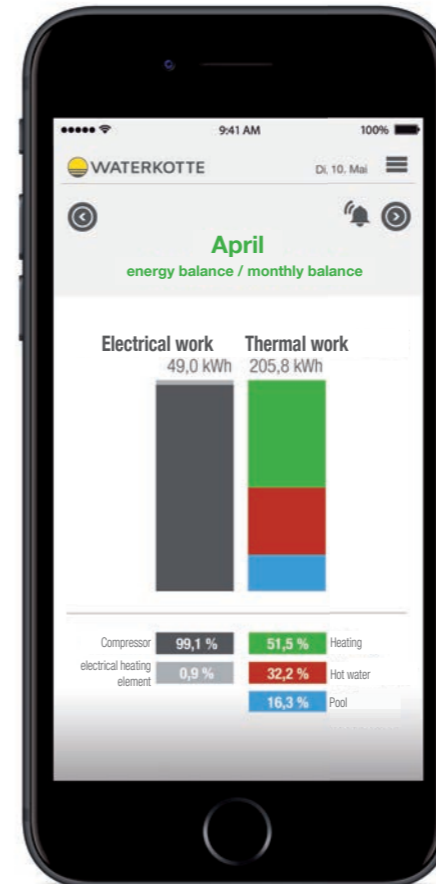
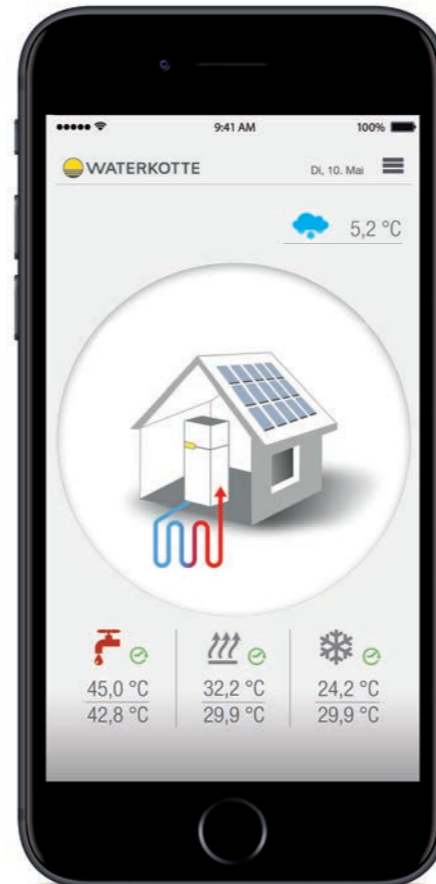
## Software

- 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 | EcoTouch Ai1 Air LC Split

EcoTouch Ai1 Air BL with R410A		5004.5
Max. heat output (A7/W35)	kW	5.9
Power consumption	kW	1.5
Max. coefficient of performance (COP) at A7/W35, regulated (for heating power in kW)		4.7 (4.0)
Max. heat output (A7/W35)	kW	4.7
Power consumption	kW	1.4
Max. coefficient of performance (COP) at A2/W35, regulated (for heating power in kW)		3.6 (3.5)
Max. heating output (A-7/W35)	kW	3.7
Power consumption	kW	1.3
Max. coefficient of performance (COP) at A-7/W35, regulated (for heating power in kW)		2.8 (3.4)
Cooling power (A35/W7)	kW	3.8
Power consumption	kW	1.4
Coefficient of performance (COP) at A35/W7		2.8
Cooling capacity (A35/W18)	kW	5.0
Power consumption	kW	1.7
Coefficient of performance (COP) at A35/W18		3.0
Room heating energy efficiency <sup>1)</sup> / domestic hot water production energy efficiency load profile L		A++ / A
Energy efficiency class of the combined system <sup>2)</sup> room heating / DHW production load profile L		A++ / A
Heating water flow rate ( $\Delta t=5K$ )	m <sup>3</sup> /h	0.8
Air volume flow (maximum)	m <sup>3</sup> /h	2000
Operating limit, heating		A-15/W58; A35/W58
Operating limit, cooling		A45/W10
Refrigerant		R410A
Sound power level at A7/W35 (outdoor module) night mode	dB(A)	58
Sound power level at A7/W35 (outdoor module) day mode	dB(A)	60

Electrical data		
Electrical power supply	V, AC, Hz	220-240, 1, 50
Electric power supply electrical resistance heating, Power supply can be selected	V, AC, Hz	220-240, 1, 50 / 380-415, 3, 50
Max. operating current	A	13.5
Main fuse protection (provided by customer)		1-pole B16A
Control fuse (provided by customer)	A	1-pole B10A
Max. current consumption electrical resistance heating (230 V)	A	26.1
Max. current consumption electrical resistance heating (400V)	A	8.7
Electrical resistance heating	kW	6
On site fuse protection electrical resistance heating (220 – 240 V)	A	B32A
On site fuse protection electrical resistance heating (380 – 415 V)	A	B16A

Dimensions, weights, connections		
Refrigerant filling	kg	1.40
Weight outdoor unit	kg	50
Weight indoor unit (bottom part)	kg	128
Weight indoor unit (top part/tank)	kg	65
Weight indoor part (cover panels)	kg	35
Tank capacity	l	204
Connections, refrigerant lines (liquid side)	1/4" (6 mm)	
Connections, refrigerant lines (gas side)		1/2" (12 mm)
Dimensions outdoor unit W x H x D	mm	900 x 580 x 340
Dimensions indoor unit W x H x D	mm	600 x 1993 x 633

Subject to technical changes. Tolerances as per EN 12900, EN 12102 and EN 14511 apply.

1) Mean temperature application, average climatic conditions. 2) On the combined system the WATERKOTTE WPRs controller class II was taken into account (without room temperature sensor).

	5008.5	5011.5	5011.5	5015.5
Max. heat output (A7/W35)	10.8	14.0	15.0	19.5
Power consumption	2.6	3.6	3.8	5.3
Max. coefficient of performance (COP) at A7/W35, regulated (for heating power in kW)	4.5 (8.1)	4.8 (6.5)	5.0 (4.7)	5.0 (4.7)
Max. heat output (A7/W35)	9.4	9.9	10.9	13.4
Power consumption	2.8	3.1	3.0	4.5
Max. coefficient of performance (COP) at A2/W35, regulated (for heating power in kW)	4.2 (3.6)	4.3 (7.8)	4.5 (7.1)	4.5 (7.1)
Max. heating output (A-7/W35)	7.2	8.0	8.7	13.3
Power consumption	2.6	2.9	3.2	5.1
Max. coefficient of performance (COP) at A-7/W35, regulated (for heating power in kW)	3.2 (4.1)	3.1 (6.3)	3.5 (6.3)	3.5 (6.3)
Cooling power (A35/W7)	6.6	7.4	9.1	11.8
Power consumption	2.4	2.7	3.4	5.5
Coefficient of performance (COP) at A35/W7	2.8	2.8	2.7	2.2
Cooling capacity (A35/W18)	8.0	10.0	8.8	14.2
Power consumption	2.3	2.8	2.0	4.2
Coefficient of performance (COP) at A35/W18	3.5	3.6	4.5	3.4
Room heating energy efficiency <sup>1)</sup> / domestic hot water production energy efficiency load profile L	A++ / A	A++ / A	A++ / A	A++ / A
Energy efficiency class of the combined system <sup>2)</sup> room heating / DHW production load profile L	A++ / A	A++ / A	A++ / A	A++ / A
Heating water flow rate ( $\Delta t=5K$ )	1.6	1.7	1.9	2.3
Air volume flow (maximum)	2700	4210	4210	4500
Operating limit, heating			A-15/W58; A35/W58	
Operating limit, cooling			A45/W10	
Refrigerant			R410A	
Sound power level at A7/W35 (outdoor module) night mode	58	60	60	61
Sound power level at A7/W35 (outdoor module) day mode	62	62	61	65

Electrical data				
Electrical power supply	220-240, 1, 50	220-240, 1, 50	380-415, 3, 50	380-415, 3, 50
Electric power supply electrical resistance heating, Power supply can be selected		220-240, 1, 50 / 380-415, 3, 50		
Max. operating current	15.7	26.5	9.9	13.9
Main fuse protection (provided by customer)	1-pole B16A	1-pole B32A	3-pole B16A	3-pole B16A
Control fuse (provided by customer)			1-pole B10 A	
Max. current consumption electrical resistance heating (230 V)			26.1	
Max. current consumption electrical resistance heating (400V)			8.7	
Electrical resistance heating			6	
On site fuse protection electrical resistance heating (220 – 240 V)			B32A	
On site fuse protection electrical resistance heating (380 – 415 V)			B16A	

Dimensions, weights, connections				
Refrigerant filling	2.15	2.95	2.95	3.50
Weight outdoor unit	67	110	110	120
Weight indoor unit (bottom part)			128	
Weight indoor unit (top part/tank)			65	
Weight indoor part (cover panels)			35	
Tank capacity			204	
Connections, refrigerant lines (liquid side)			3/8" (10 mm)	
Connections, refrigerant lines (gas side)			5/8" (16 mm)	
Dimensions outdoor unit W x H x D	900 x 860 x 340	900 x 1250 x 340	900 x 1250 x 340	900 x 1250 x 340
Dimensions indoor unit W x H x D			600 x 1993 x 633	

Subject to technical changes. Tolerances as per EN 12900, EN 12102 and EN 14511 apply.

1) Mean temperature application, average climatic conditions. 2) On the combined system the WATERKOTTE WPRs controller class II was taken into account (without room temperature sensor).



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