

Efficiency at its most beautiful

High-end heat pump | EcoTouch Air Kaskade



* At A7/W35, COP 4.5 at (A2/W35)



EcoTouch Air Kaskade | Power range of 30 – 120 kW



A+: Energy-efficient combined system (including WWPR2 class II controller) heating W35 and DHW preparation. Variations within the series possible.

Cascadable up to 156 kW

The new EcoTouch Air Kaskade uses the air as a heat source. The compact indoor module can be combined with up to eight outdoor units and in this way covers performance requirements up to 120 kW.

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.

Outstandingly efficient

The technical values of the new Kaskade impress: the coefficient of performance (COP) of 5.0 is outstanding and confirms the high efficiency of the system. The operating costs are reduced to a minimum with the new development.

Robust and durable

The 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

- Colour 4.3" touch display
- Integrated web interface for app control
- Intuitive control software EasyCon
- Automatic Legionella protection circuit
- Integrated flow rate measurement
- Pressure sensor in the heating circuit
- Speed-controlled circulation pumps, efficiency class A
- Connections installed on rear
- Unit dimensions (H x W x D): 750 x 1470 x 611 mm

Outdoor unit features

- Special insulation for noise reduction
- Easy to service unit design
- Weather-resistant housing
- Speed-controlled fans
- Speed-controlled double rotary piston compressor
- Electronic expansion valve
- Defrosting process: Circulation reversal using 4-way valve
- Active cooling due to reversible refrigerant circulation
- Unit dimensions (W x H x D): 900 x 1250 x 340 mm

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

- Cascading with up to 8 outdoor units possible
- Touch display with innovative EasyCon software
- Low operating costs due to COP values up to 5.0
- Smartphone control via EasyCon Mobile
- Optimised space requirement 0.46 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

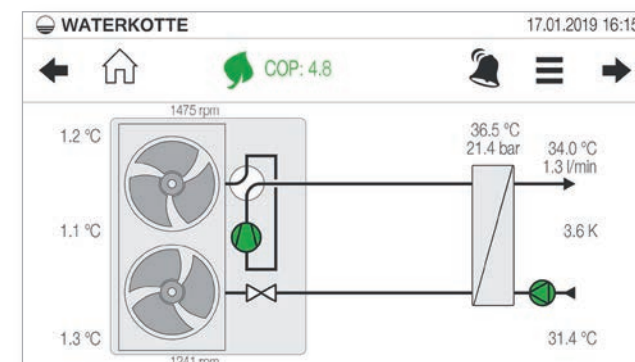
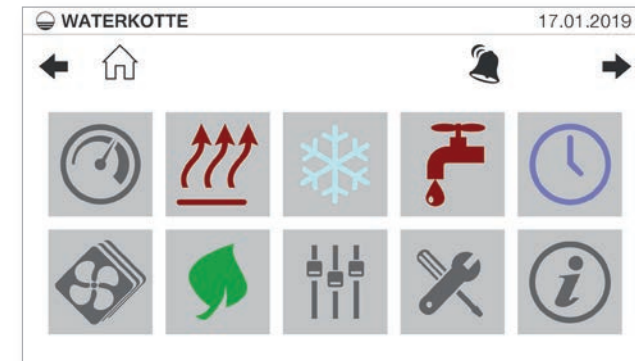
The symbols, also referred to as icons, are self-explanatory. You therefore always have quick access to all important functions of the unit. Setting the desired temperature or timer program is child's play. Operating a heating system without the operating manual has never been easier.

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 the EasyCon, in addition to the modern graphic user prompts, is its simple integration into a network. As standard, all heat pumps in the EcoTouch series can be connected to a network via the touch-screen. The EasyCon Mobile app allows you to control your heat pump even while you are on the move.



Features of the control unit

- Touch sensitive screen, size 4.3"
- Dedicated web-based user interface for easy setting up, operation and maintenance
- Operation via smartphone app
- USB port for updates or for downloading recorded data
- Network connection for remote access

Software

- State-of-the-art control technology
- Efficient automatic system for heating and cooling mode
- Preprogrammed for additional control loops such as:
 - Use of thermal solar energy
 - Photovoltaics
 - Second heating circuit e.g. for swimming pool heating
 - And three additional mixer circuits
- Energy management included
- Comprehensive bivalence point settings
- Remote control via app EasyCon Mobile
- Automatic screen saver

Ease of use

- Intuitive, self-explanatory control software EasyCon
- Clear display of all system states
- Access to central menu items via Quicklinks
- Dynamic display of refrigerant circuit
- E-mail sent automatically if there are malfunctions
- Graphic display of temperature curves
- Overview of the energy balance at all times
- Individual timer programs and holiday function
- Internet connection with web-based user interface as standard feature

Technical data | EcoTouch Air Kaskade

EcoTouch Air Kaskade		5030.5	5045.5
Number of outdoor units		2	3
Max. heating capacity (A7/W35)	kW	30.4	45.6
Power consumption (A7/W35, full load)	kW	10.6	15.9
Max. coefficient of performance (COP) at A7/W35, regulated			5.0
Max. heating capacity (A2/W35)	kW	26.8	40.2
Power consumption (A2/W35, full load)	kW	9	13.5
Max. coefficient of performance (COP) at A2/W35, regulated		4.5	
Max. heating capacity (A-7/W35)	kW	26.6	39.9
Power consumption (A-7/W35, full load)	kW	10.2	15.3
Max. coefficient of performance (COP) at A-7/W35, regulated			3.5
Cooling capacity (A35/W7)	kW	23.6	35.4
Power consumption (A35/W7, full load)	kW	11	16.5
Coefficient of performance (COP) at A35/W7		2.2	
Cooling capacity (A35/W18)	kW	28.4	42.6
Power consumption (A35/W18, full load)	kW	8.4	12.6
EER at A35/W18		3.4	
Room heating energy efficiency ¹⁾ / domestic hot water production energy efficiency load profile L		A+	A+
Energy efficiency class of the combined system ²⁾ room heating/DHW production load profile L		A+	A+
Heating water flow rate ($\Delta t=5$ K) per outdoor unit	m ³ /h	2.3	
Air flow rate (maximum) per outdoor unit	m ³ /h	4500	
Operating limit, heating		A-15/W58; A35/W58	
Operating limit, cooling		A45/W10	
Refrigerant		R410A	
Sound power level (A7/W55) night mode (per outdoor unit)	dB(A)	61	
Sound power level (A7/W55) day mode (per outdoor unit)	dB(A)	65	

Electrical data

Electrical power supply	V, AC, Hz	380-415, 3, 50	
Max. operating current (per outdoor unit)	A	13.9	
Main fuse per outdoor unit (on site)	A	3-pole B16 A	
Control fuse per outdoor unit (on site)	A	1-pole B10A	

Dimensions, weights, connections

Refrigerant filling per outdoor unit	kg	3.50	
Weight per outdoor unit	kg	120	
Weight, indoor unit	kg	113.0	125.5
Connections, refrigerant lines (liquid side)	mm	3/8"/10 mm	
Connections, refrigerant lines (gas side)	mm	5/8"/16 mm	
Connections, heating		2", OT, flat-sealing	
Dimensions outdoor unit W x H x D	mm	900 x 1250 x 340	
Dimensions indoor unit W x H x D	mm	750 x 1470 x 611	

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

¹⁾ Mean temperature application 55 °C, average climatic conditions. ²⁾ On the combined system the WWPR2 class II controller was taken into account (without room temperature sensor).

	5060.5	5075.5	5090.5	5105.5	5120.5
	4	5	6	7	8
Max. heating capacity (A7/W35)	60.8	76.0	81.2	96.4	111.6
Power consumption (A7/W35, full load)	21.2	26.5	31.8	37.1	42.4
Max. coefficient of performance (COP) at A7/W35, regulated			5.0		
Max. heating capacity (A2/W35)	53.6	67	80.4	93.8	107.2
Power consumption (A2/W35, full load)	18	22.5	27	31.5	36
Max. coefficient of performance (COP) at A2/W35, regulated			4.5		
Max. heating capacity (A-7/W35)	53.2	66.5	79.8	93.1	106.4
Power consumption (A-7/W35, full load)	20.4	25.5	30.6	35.7	40.8
Max. coefficient of performance (COP) at A-7/W35, regulated			3.5		
Cooling capacity (A35/W7)	47.2	59	70.8	82.6	94.4
Power consumption (A35/W7, full load)	22	27.5	33	38.5	44
Coefficient of performance (COP) at A35/W7			2.2		
Cooling capacity (A35/W18)	56.8	71	85.2	99.4	113.6
Power consumption (A35/W18, full load)	16.8	21	25.2	29.4	33.6
EER at A35/W18			3.4		
Room heating energy efficiency ¹⁾ / domestic hot water production energy efficiency load profile L	A+	A+	A+	A+	A+
Energy efficiency class of the combined system ²⁾ room heating/DHW production load profile L	A+	A+	A+	A+	A+
Heating water flow rate ($\Delta t=5$ K) per outdoor unit			2.3		
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Refrigerant			R410A		
Sound power level (A7/W55) night mode (per outdoor unit)			61		
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Electrical data

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Control fuse per outdoor unit (on site)	A	1-pole B10 A			

Dimensions, weights, connections

Refrigerant filling per outdoor unit	kg	3.50				
Weight per outdoor unit	kg	120				
Weight, indoor unit	kg	138.0	151.5	164.0	176.5	189.0
Connections, refrigerant lines (liquid side)	mm	3/8"/10 mm				
Connections, refrigerant lines (gas side)	mm	5/8"/16 mm				
Connections, heating		2", OT, flat-sealing				
Dimensions outdoor unit W x H x D	mm	900 x 1250 x 340				
Dimensions indoor unit W x H x D	mm	750 x 1470 x 611				

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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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