

# Efficiency at its most beautiful

High-end heat pump | **Industrial Line EcoTouch 5110T**



The illustration shows optional unit equipment.



## WATERKOTTE Industrial Line

High-end heat pumps for large projects



### The future belongs to the heat pump

Today, the heat pump is the second most used heating system in new buildings in Germany. The triumph of the heat pump will continue. The high efficiency of the systems, emission-free operation and increased safety compared to gas heating are the decisive factors. The heat pump meets the increasing energy requirements of buildings at all times.

### We invented it

Klemens Waterkotte was a pioneer. In 1968 he built the first heat pump in Germany. Today we can verify WATERKOTTE heat pumps that have been in operation for more than 30 years. No other manufacturer can look back on an experience with heat pump technology of similar length. WATERKOTTE stands for innovation and product quality.

### Small and large systems

WATERKOTTE is one of the few suppliers of large systems with performance values of up to 1,000 kW. As an innovative heat pump specialist, we offer industrial solutions based on geothermal energy and air heat. The know-how gained from large systems also benefits our small systems. This results in devices with top-of-the-range performance values.

### Innovations are our strength

WATERKOTTE has many years of know-how in the field of heat pumps. The production in Herne guarantees outstanding product quality. With the EcoTouch series, we have introduced one of the most modern and efficient heat pumps to the world. The numerous awards confirm the high innovative strength of WATERKOTTE.

# Industrial Line EcoTouch 5110T | Power range 26 – 112 kW



A+++ Energy efficiency of combined system (incl. WWPR II controller) heating W35, deviations within the series possible. The illustration shows optional unit equipment.

## Powerful compact heat pump

The ET 5110T covers a wide power spectrum in various sizes from 26 - 112 kW. By connecting a water tank from the EcoStock series, the heat pump becomes a complete heating system.

## Demand-oriented performance

The integrated compressors can be operated individually or together. The option allows flexible, two-stage power control. The power levels 50 % and 100 % are possible according to demand.

## Highest quality in every component

When producing the housing, we also rely on interior lining with airborne sound insulation in addition to thick-walled sheet steel for the components. During maximum performance, low noise emission is guaranteed.

## Simple operation and mobile control

The EasyCon software combines technical complexity with intelligent ease of use. The EasyCon Mobile App enables simple, mobile and intuitive control via Smartphone, tablet or computer.

## Features

- Heat pump for the medium power requirement
- Energy efficiency class A++ / A+++
- Power adjustment 50 % / 100 %
- Colour 4.3" touch display
- Integrated WebInterface for remote monitoring
- Intuitive control software EasyCon
- Sensor system with numerous sensors
- COP counter and display of all operating data
- Cascade control of up to 8 units
- Domestic water heating with external storage tank
- Chlorine-free refrigerants R410A and R134a
- Signal for the speed control of the circulation pump
- Easy to service unit design
- Connections installed on rear
- Unit dimensions (W x H x D): 1130 x 1306 x 886 mm

## Optional features

- Flexible hoses for hydraulic connections
- Colour 10.4" touch display
- Foundation support for vibration decoupling
- Electronic soft start
- Controller expansion for:
  - Second heating circuit e.g. for swimming pool heating
  - Use of thermal solar energy
  - Two additional mixing circuits

## Highlights

- Low operating costs due to high COP values
- Power adjustment through tandem compressor
- Innovative control software with mobile control
- Fully integrable into the Internet
- Display of running COP values
- Anthracite housing with robust powder coating

Technical data Industrial Line EcoTouch 5110T | Power range from 26 – 77 kW

Industrial Line EcoTouch 5110T with R134a		ET 5036.4T	ET 5049.4T	ET 5063.4T	ET 5077.4T
<b>Heat source groundwater<sup>1)</sup></b>					
Power input/output W10/W35	kW	7.4/36.8	9.1/49.4	11.6/63.0	14.2/77.2
Coefficient of performance (COP) at W10/W35		4.87	5.31	5.29	5.29
Space heating energy efficiency <sup>2)</sup>		A++	A++	A++	A++
Energy efficiency class of the combined system <sup>3)</sup>		A+++	A+++	A+++	A+++
Groundwater flow rate	m <sup>3</sup> /h (ΔT=3K)	8.6	11.7	14.9	18.3
Groundwater flow rate, minimum	m <sup>3</sup> /h <sup>4)</sup> (ΔT=6K)	4.3	5.9	7.5	9.2
Heating water flow rate	m <sup>3</sup> /h (ΔT=5K)	6.3	8.5	10.9	13.3
Operating limit		W10/W75; W15/W70			
Compressor		Fully hermetic tandem scroll			
Power control		50 % / 100 %			

<b>Heat source ground</b>					
Power input/output B0/W35	kW	6.7/26.3	8.3/35.8	10.6/45.4	13.0/55.4
Coefficient of performance (COP) at B0/W35		3.84	4.25	4.23	4.20
Space heating energy efficiency <sup>2)</sup>		A+	A++	A++	A++
Energy efficiency class of the combined system <sup>3)</sup>		A+	A++	A++	A++
Heat source flow rate <sup>5)</sup>	m <sup>3</sup> /h (ΔT=3K)	6.3	8.8	11.2	13.6
Heating water flow rate	m <sup>3</sup> /h (ΔT=5K)	4.5	6.2	7.8	9.5
Operating limit		B-5/W70; B0/W75			
Compressor		Fully hermetic tandem scroll			
Power control		50 % / 100 %			

<b>Electrical data</b>					
Electric power supply	V, AC, Hz	400, 3, 50			
Unreduced starting current	A	99	127	167	198
Starting current soft start	A	50	59	84	99
Max. operating current	A	2 x 17	2 x 21	2 x 25	2 x 32
Main fuse on site (compressor)		C 50 A	C 50 A	C 63 A	C 80 A
Control fuse on site		B 10 A	B 10 A	B 10 A	B 10 A

<b>Dimensions, weights, connections</b>					
Number of scroll compressors		2	2	2	2
Weight of unit	kg	352	377	399	456
Connections: Heat source / use		flat-sealing R 2" a / R 2" a			
Dimensions W x H x D	mm	1130 x 1306 x 886			

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

<sup>1)</sup> 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. <sup>2)</sup> Mean temperature application, average climatic conditions <sup>3)</sup> The Waterkotte WWPR controller class III (without room temperature sensor) was considered for the combined system. <sup>4)</sup> At W10/W35 and ΔT=6K. <sup>5)</sup> Fluid 70 % water + 30 % ethylene glycol.

Technical data Industrial Line EcoTouch 5110T | Power range from 48 – 112 kW

Industrial Line EcoTouch 5110T with R410A		ET 5063.5T	ET 5075.5T	ET 5085.5T	ET 5095.5T	ET 5112.5T
<b>Heat source groundwater<sup>1)</sup></b>						
Power input/output W10/W35	kW	10.6/63.2	12.1/75.2	13.8/85.0	15.6/95.2	18.9/112.2
Coefficient of performance (COP) at W10/W35		5.73	5.90	5.85	5.77	5.58
Space heating energy efficiency <sup>2)</sup>		A+++	A+++	A+++	A+++	A+++
Energy efficiency class of the combined system <sup>3)</sup>		A+++	A+++	A+++	A+++	A+++
Groundwater flow rate	m <sup>3</sup> /h (ΔT=3K)	15.3	18.3	20.7	23	27
Groundwater flow rate, minimum	m <sup>3</sup> /h <sup>4)</sup>	7.7	9.2	10.4	11.5	13.5
Heating water flow rate	m <sup>3</sup> /h (ΔT=5K)	10.9	13.0	14.6	16.4	19.3
Operating limit		W10/W63				
Compressor		Fully hermetic tandem scroll				
Power control		50 % / 100 %				

<b>Heat source ground</b>						
Power input/output B0/W35	kW	10.4/47.6	12.0/56.6	13.6/64.2	15.2/71.4	18.3/84.6
Coefficient of performance (COP) at B0/W35		4.45	4.58	4.58	4.56	4.45
Space heating energy efficiency <sup>2)</sup>		A+++	A+++	A+++	A+++	A+++
Energy efficiency class of the combined system <sup>3)</sup>		A+++	A+++	A+++	A+++	A+++
Heat source flow rate <sup>5)</sup>	m <sup>3</sup> /h (ΔT=3K)	11.9	14.3	16.2	18.0	21.2
Heating water flow rate	m <sup>3</sup> /h (ΔT=5K)	8.2	9.7	11.1	12.3	14.6
Operating limit		B-5/W50 B0/W55 B5/W58				
Compressor		Fully hermetic tandem scroll				
Power control		50 % / 100 %				

<b>Electrical data</b>						
Electric power supply	V, AC, Hz	400, 3, 50				
Unreduced starting current	A	111	118	118	140	174
Starting current soft start	A	56	59	59	70	87
Max. operating current	A	2 x 21	2 x 22	2 x 25	2 x 31	2 x 34
Main fuse on site (compressor)		C 50 A	C 50 A	C 63 A	C 80 A	C 80 A
Control fuse on site		B 10 A	B 10 A	B 10 A	B 10 A	B 10 A

<b>Dimensions, weights, connections</b>						
Number of scroll compressors		2	2	2	2	2
Weight of unit	kg	312	327	338	357	370
Connections: Heat source / use		flat-sealing R 2" a / R 2" a				
Dimensions W x H x D	mm	1130 x 1306 x 886				

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