



PRODUCT INFORMATION

The next generation of heat pumps:  
The new Vitocal 150-A/151-A range





Day by day, technical progress makes our lives more pleasant and safer. New ideas are born that change the world. We are helping to shape this change – with intelligent solutions for climate and for comfort. "We create living spaces for generations to come," we also take responsibility for the things that come after us. The protection and preservation of our environment and the natural world that surrounds us is without doubt among the most important tasks that our society has to cope with.

We see the energy transition and digitisation as a great opportunity. This gives us the guidelines for careful use of our natural resources. It is against this background that the new heat pump program was developed, with a concept that once again significantly increases efficiency. For even quieter, more comfortable operation, reduced emissions and lower energy consumption for heating and hot water.

## The new generation of heat pumps



The new Vitocal 151-A monobloc heat pumps with up to 70°C flow temperature are ideally suited for renovation projects.



CLIMATE PROTECT **+++**



OPTIPERFORM



SERVICE LINK



SUPER SILENT

Reliable, compact and environmentally friendly like never before – with the new, innovative heat pump technology from Viessmann. Environmental heat can be used efficiently for heating and cooling.

With a flow temperature of up to 70°C, the Vitocal 150-A/151-A range has been specially designed for renovation projects. Existing radiators can continue to be used and underfloor heating is not required but is an alternative.

**Climate Protect<sup>+++</sup>  
protects the environment  
and the climate**

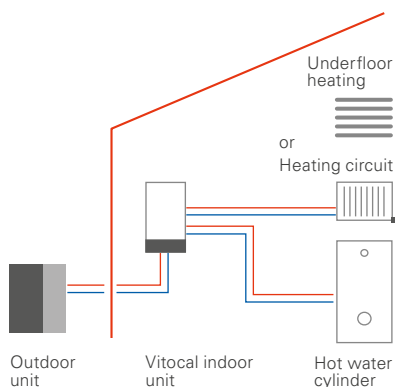
The Vitocal 150-A/151-A range use the "green" refrigerant R290 (propane), which is considered to be particularly environmentally "friendly", with a very low GWP100 of 0.02 (Global Warming Potential).



**CLIMATE PROTECT<sup>+++</sup>**

**OptiPerform – reliable  
operation with maximum  
efficiency**

The modern heat pumps from Viessmann work with patented hydraulics. With Hydro AutoControl<sup>®</sup> the heat pump is operated reliably and with maximum efficiency over the entire service life of the product. The unique design ensures that the engineer can install the heat pump much faster and more cost-effectively. It also takes up much less space, because it is up to 60 percent smaller than similar systems.

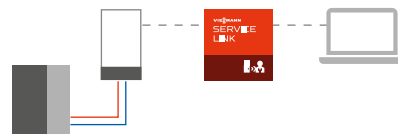


**OPTIPERFORM**

\* One heating circuit, radiator or underfloor heating

**Service Link – for faster  
response times**

The Vitocal 150-A/151-A range are always connected to Viessmann with Viessmann Service. Completely free of charge, the heat pump instantly transmits any faults. The installer can immediately take the necessary measures, which eliminates unnecessary trips, saving time and money.



Outdoor unit    Vitocal indoor unit    Viessmann Service



**SERVICE LINK**

**Super Silent**

Viessmann heat pumps are amongst the quietest of their kind.



**SUPER SILENT**

**ADVANTAGES**

- + Installation as easy as a wall-mounted gas unit
- + Significantly faster installation (up to 90 minutes time saving) of the indoor unit thanks to the Hydro AutoControl hydraulic system
- + Around 50% fewer components to install
- + No need to take into account minimum flow rate and circulation rate or water temperature during commissioning
- + Service Link without WLAN connection enables faster response time in case of service
- + High flow temperatures of up to 70°C (at outdoor temperatures as low as -10°C)
- + Only one operating and service app for all system components (from the heat pump to the electricity storage unit to the home ventilation system).
- + Whisper-quiet in full and partial load operation

**ADVANTAGES FOR USERS**

- + With a flow temperature of 70°C, ideally suited for renovation projects
- + Climate Protect<sup>+++</sup>: Protects the environment and the climate
- + OptiPerform: Reliable operation with maximum efficiency
- + Service Link: Guaranteed faster response time in case of service
- + Low operating costs thanks to high efficiency and self-optimising heat pump
- + Integrated Energy Management ensures transparency in energy consumption and costs
- + Super Silent: Viessmann heat pumps are amongst the quietest of their kind



## VISSMANN ONE BASE

### Viessmann One Base More comfort, overview and efficiency



Easy monitoring and control of customer systems with ViGuide

**Viessmann One Base:  
commissioning,  
maintenance, service and  
monitoring for all Viessmann  
systems from a single source**

Viessmann One Base networks the products and systems in Viessmann's integrated range of solutions. Comprehensive climate and energy solutions can now be seamlessly linked digitally – Vitodens gas condensing boilers, Vitocal heat pumps, Vitoair ventilation systems, Vitovolt photovoltaic modules and Vitocharge power storage units.

Thanks to Connectivity Inside, all components work perfectly together with Viessmann Energy Management. For more convenience, clarity and efficiency. Networked with the digital services of the future Viessmann One Base offers even more besides, allowing easy integration of smart home and building management systems from other providers as well as third party products, such as Wallboxes. Control via voice assistants comes as standard.

### Compatible and future-proof

With Viessmann One Base, users benefit from futureproof, extendible energy systems equipped for the long term. For example, a Vitocal heat pump can be supplemented with a photovoltaic system and power storage unit. The system can be operated quickly, safely and easily thanks to the ViCare app and Viessmann Energy Management.

### A new dimension of service

From a desktop PC in the office or an app on a mobile device, the heating contractor manages the energy system online throughout its entire service life with the ViGuide control tool. Remote monitoring provides key information in real time. Details of the system installation, system settings and status messages are shown in the event log. This can be used to detect faults quickly and often remedy them online, saving time, unnecessary journeys and ultimately costs. Customers feel reassured, and confident that they are in good hands. They know that their energy system is supervised 24/7 and running efficiently.



### Viessmann Energy Management

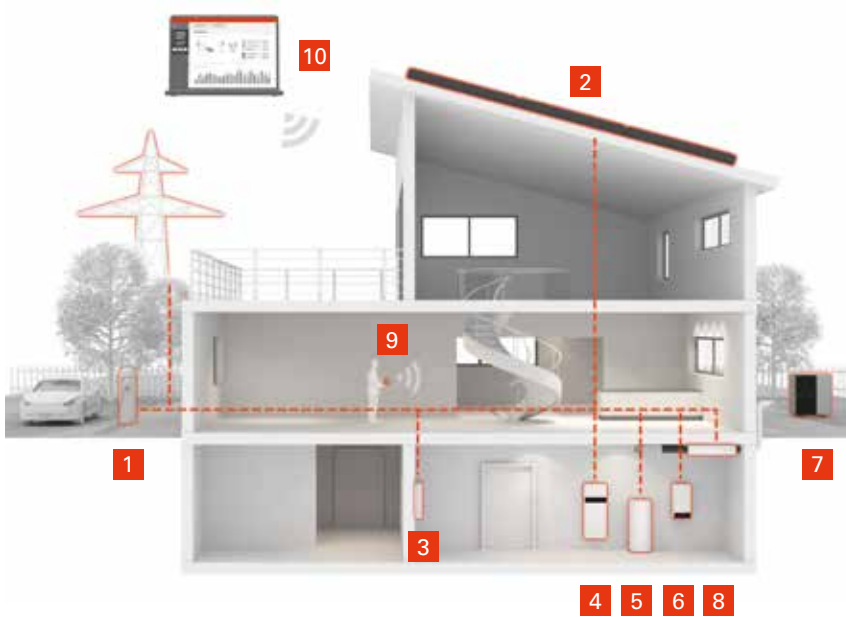
Networked Viessmann products help to use less energy resources and reduce heating costs.



With the ViCare Energy Cockpit, the customer has all the energy information in their household at a glance.



The analysis shows current and past efficiency and consumption rates in the household.



- 1** Electric charging station
- 2** Vitovolt photovoltaic system
- 3** Mains connection
- 4** Vitocharge VX3 power storage system\*
- 5** Vitocell DHW cylinder
- 6** Indoor unit air/water heat pump Vitocal
- 7** Vitocal heat pump outdoor unit
- 8** Vitoair FS domestic ventilation system\*
- 9** ViCare app
- 10** ViGuide service center

\* Planned for UK launch in 2023

Through the networking of Viessmann products, the house becomes intelligent. Viessmann One Base saves energy resources and costs at the same time.

#### Service in a new dimension

Whether via laptop in the office or mobile app: the energy system is monitored with the ViGuide control tool. Remote monitoring provides important information at a glance: from the details of the system installation, important system settings and status messages.

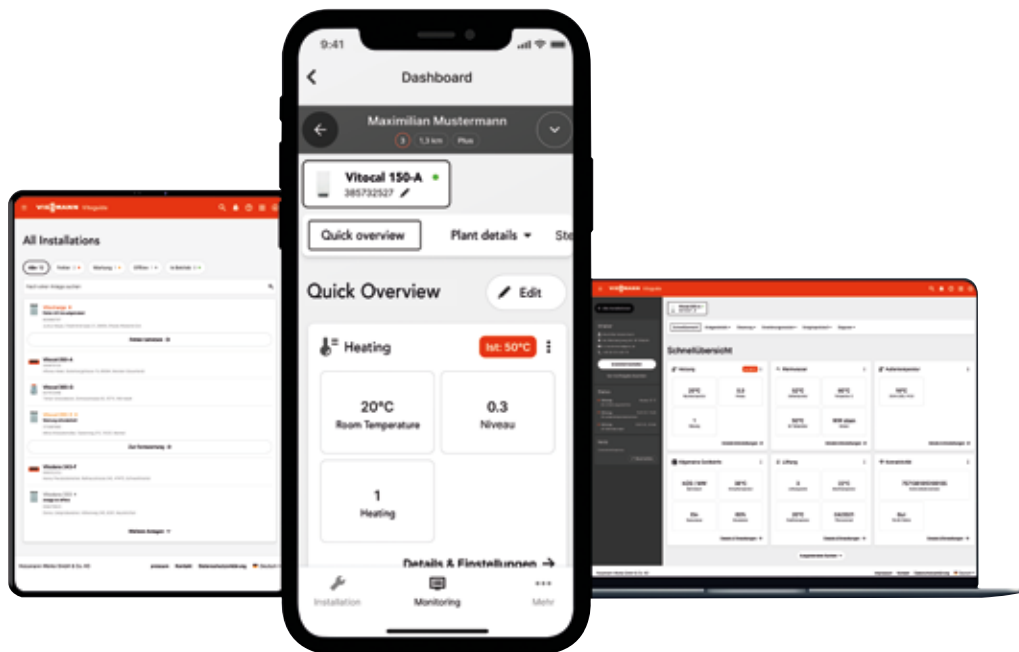
As installers can accurately diagnose errors, they save time and unnecessary trips. This creates customer confidence and increases safety. The user knows that their system is supervised around the clock and that it is running efficiently. This is because the installer can eliminate issues before they become a problem.

#### Everything in view – and always connected

With the electronic platform, all products have Connectivity Inside. The error codes are identical for all products. The accessories and spare parts are the same for all products and are therefore interchangeable, regardless of which product it is.

Are you on site and there is no internet connection available? The electronic platform has the solution. Without an Internet connection, parameters can be adjusted and optimised. To do this, the installer uses the ViGuide app on their tablet or smartphone to establish a direct wireless connection with the heating unit.





**ViGuide** – the central control tool for the installer. Here, all systems can be monitored remotely no matter where and when.

#### ELECTRONIC PLATFORM ADVANTAGES FOR THE INSTALLER:

- + Commissioning, maintenance, service and monitoring from a single source.
- + Better service through guided replacement of spare parts
- + Convenient remote monitoring
- + Fewer on-site visits, lower travel costs
- + Future-proof system that grows with customer needs
- + Works with any device, for any application: smartphone or laptop, iOS or Android



Hydro AutoControl – reliable operation with maximum efficiency

## Viessmann Hydro AutoControl

The new, patented hydraulics from Viessmann that make heat pump installations child's play.

**1** **Viessmann heat pumps are particularly quiet and efficient.**

With their excellent design, which also includes the accessories, they set high standards. Due to the environmentally friendly, natural refrigerant propane, the heat pump can operate even at outside temperatures of  $-10^{\circ}\text{C}$ .

**2** **With  $70^{\circ}\text{C}$  flow temperature it is ideally suited for renovations**

This means that it can be used to heat existing buildings that are equipped with radiators.

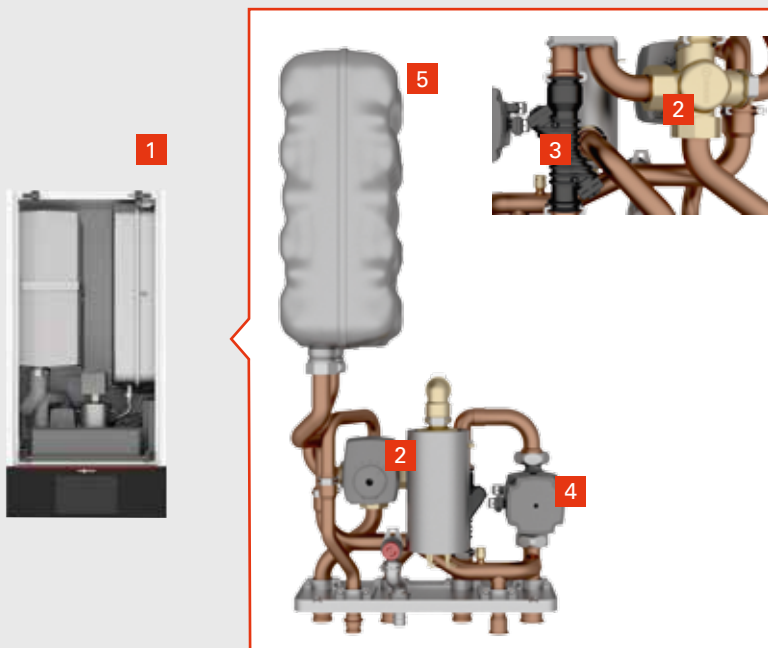
### Simplify the renovation of an existing system.

To make the renovation of an existing system with the new Vitocal 150-A/151-A range as easy as possible, we have equipped it with a new, innovative hydraulic system. The patented Hydro AutoControl system simplifies the renovation of an existing system significantly.



Significantly reduced space requirement due to Hydro AutoControl

### Hydro AutoControl – the heart of the device:



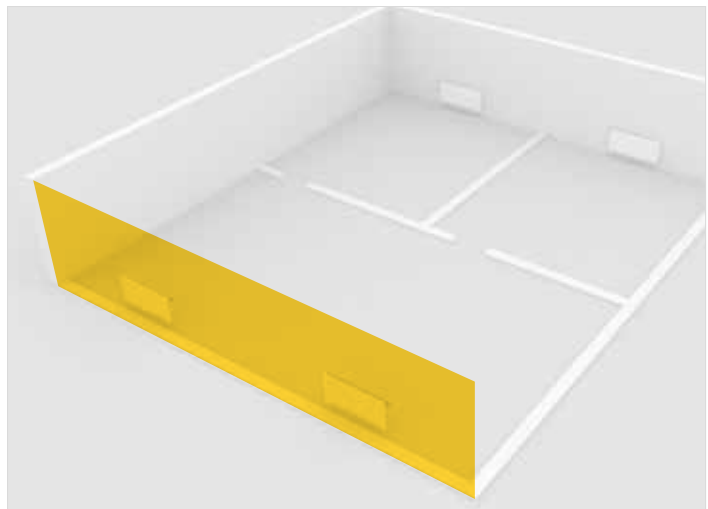
- 1** Hydro AutoControl forms the heart of the unit. It consists of four core components that interact with each other.
- 2** The 4/3-way valve distributes the hot water. In the process the heating circuit, domestic hot water tank or the bypass can be operated. A mixed position between the heating circuit and bypass is also possible.
- 3** The integrated flow rate sensor is a central component of the Hydro AutoControl system and supplies the data to the higher-level control system.
- 4** The control system operates the 4/3 directional control valve and the speed-controlled high-efficiency pump according to the hydraulic requirements of the system.
- 5** The fourth core component is the defrosting buffer built into the unit, which ensures that a robust and complete defrosting can take place. In addition, it also ensures that the start-up of the system is at low heating circuit temperatures (e.g. for filling with cold water in spring).

# Common problems in the heating circuit are solved with the new hydraulics:

## Insufficient circulation quantities due to closing radiator valves

### Hydro AutoControl regulates the minimum circulation volume

If, for example, the room temperature changes due to warm weather, Hydro AutoControl reacts to the closing thermostatic valves and the resulting pressure increase in the system by opening the bypass valve. The flow rate is reduced until the minimum circulation rate is reached. At this point the bypass valve opens again, so that the minimum minimum flow rate is always maintained.



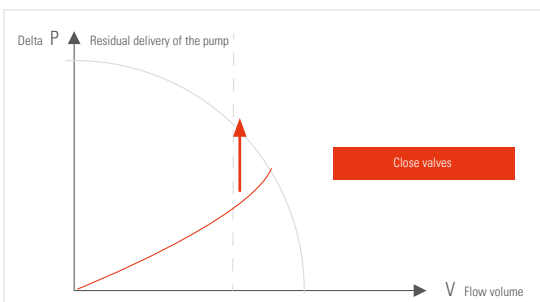
Temperature increase due to solar radiation



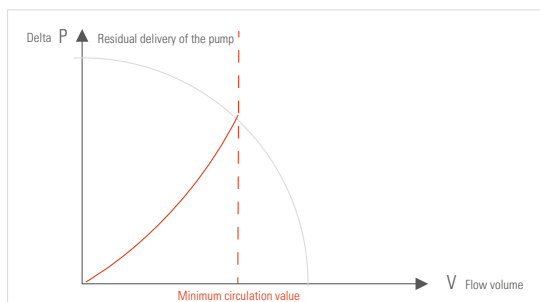
Radiator valve open



Radiator valve closes due to temperature increase



Radiator valve closes, volume flow is reduced



Hydro AutoControl regulates the minimum circulation quantity

# Freezing of the evaporator is prevented:

Via the particularly efficient defrosting process

## **An efficient defrosting process due to cycle inversion**

Especially at outside temperatures just above freezing point, the evaporator of an air-to-water heat pump installed outside starts to freeze.

To prevent the evaporator from freezing, it is automatically defrosted. In modern air-to-water heat pumps, this is done by the particularly efficient defrosting process called cycle reversal.

In this process, energy is briefly taken from the home network and used to heat the evaporator. Hydro AutoControl ensures that sufficient defrosting energy is always available to heat the evaporator.



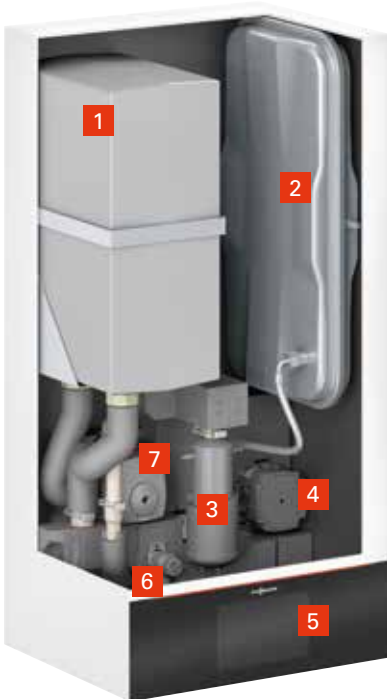
Efficient defrosting process due to cycle reversal

### **VISSMANN HYDRO AUTOCONTROL ADVANTAGES:**

- + Ensures optimum circulation rates thanks to integrated volume flow sensor and bypass
- + Provides defrosting energy through integrated buffer tank
- + Reduces the space requirement of the system by up to 60%
- + Reduces installation time by up to 90 min

## VITOCAL 150-A

2,6 to 14,9 kW



### VITOCAL 150-A

Indoor unit

- 1** Heating water buffer tank  
(16 litre capacity)
- 2** Diaphragm expansion tank  
(10 litre capacity)
- 3** Heating water instantaneous  
water heater
- 4** Secondary pump  
(high-efficiency circulation pump)
- 5** Heat pump control with  
7-inch color touch display
- 6** Safety valve
- 7** 4/3-way valve heating/  
DHW heating/bypass

### Vitocal 150-A outdoor unit

- 1** Coated evaporator
- 2** Energy-saving, speed-controlled DC fan
- 3** Inverter-controlled compressor
- 4** Inverter
- 5** Condenser



COOLING  
FUNCTION



### PRODUCT FEATURES

- Air-to-water heat pumps in monobloc design
- For space heating/cooling and domestic hot water heating
- Maximum flow temperature: 70°C (with outdoor temperature down to -10°C)
- Monobloc indoor unit with heat pump control, high-efficiency circulation pump for the secondary circuit, 4/3-way valve, safety group
- Built-in heating water instantaneous water heater
- Built-in heating water buffer tank and overflow valve

# VITOCAL 150-A

<b>Vitocal 150-A</b> AWO-M-E-AC(-AF)		150.A10 SP	150.A13 SP	150.A16 SP
<b>Voltage</b>	V	230	230	230
<b>Vitocal 150-A</b> AWO-E-AC(-AF)				
<b>Voltage</b>	V	230	230	230
<b>Performance data heating according to EN 14511</b>				
<b>Nominal heat output</b>				
Operating point A7/W35	kW	7,3	8,1	9,1
Operating point A-7/W35	kW	9,7	11,1	12,4
<b>Performance data heating according to EN 14511 (A7/W35, spread 5 K)</b>				
<b>Nominal heat output</b>				
coefficient of performance $\epsilon$ (COP) in heating mode		5,0	4,9	4,9
Output range	kW	2,6 – 12,0	3,0 – 13,4	3,3 – 14,9
<b>Sound power level</b>	dB(A)	56	56	56
<b>Cooling performance data according to EN 14511 (A35/W18, spread 5 K)</b>				
<b>Cooling capacity</b>	kW	9,6	11,0	13,2
<b>EER coefficient of performance</b>		4,4	4,0	3,7
<b>Cooling capacity max.</b>	kW	14,4	15,7	17,0
<b>Refrigeration circuit</b>				
Refrigerant		R290	R290	R290
– Filling quantity as delivered	kg	2	2	2
– Global warming potential (GWP100 acc. to IPCC AR6)		0,02	0,02	0,02
– CO <sub>2</sub> equivalent	t	0,00004	0,00004	0,00004
<b>Dimensions</b>				
Length x width x height				
<b>Indoor unit</b>	mm	360 x 450 x 920		
<b>Outdoor unit</b>	mm	600 x 1144 x 1382		
<b>Weight indoor unit</b>	kg	47	47	47
<b>Weight outdoor unit</b>	kg	191	191	191
<b>Energy Efficiency <math>\eta_s</math> at W35</b>	%	190	178	178
<b>Energy Efficiency <math>\eta_s</math> at W55</b>	%	145	141	141

Measurement of the sound power level in accordance with EN ISO 12102/EN ISO 9614-2, accuracy class 3 in night mode  
 Energy efficiency  $\eta_s$ : Heating performance data according to EU Regulation No. 813/2013 at average climate conditions for low-temperature application (W35) and medium temperature application (W55)

## VITOCAL 151-A

2,6 to 14,9 kW

Cylinder capacity: 190 l



### VITOCAL 151-A

Indoor unit

- 1** Heating water buffer tank  
(16 litre capacity)
- 2** Diaphragm expansion tank  
(10 litre capacity)
- 3** Heating water instantaneous  
water heater
- 4** Secondary pump  
(high-efficiency circulation pump)
- 5** Heat pump control with  
7-inch color touch display
- 6** Safety valve
- 7** 4/3-way valve heating/  
domestic hot water/bypass
- 8** Hot water tank (190 litre capacity)

### Vitocal 151-A outdoor unit

- 1** Coated evaporator
- 2** Energy-saving, speed-controlled DC fan
- 3** Inverter-controlled compressor
- 4** Inverter
- 5** Condenser



### PRODUCT FEATURES






- Air-to-water heat pump compact unit in monobloc design
- Integrated storage water heater (190 l capacity)
- For space heating/cooling and DHW heating
- Maximum flow temperature: 70°C (at an outdoor temperature down to -10°C)
- Monobloc indoor unit with heat pump control, high-efficiency circulation pump for the secondary circuit, 4/3-way valve, safety group
- Built-in heating water instantaneous water heater
- Built-in heating water buffer tank and overflow valve



# VITOCAL 151-A

<b>Vitocal 151-A</b> AWOT-M-E-AC(-AF)		151.A10 SP	151.A13 SP	151.A16 SP
<b>Voltage</b>	V	230	230	230
<b>Vitocal 151-A</b> AWO-E-AC(-AF)				
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<b>EER coefficient of performance</b>		4,4	4,0	3,7
<b>Cooling capacity max.</b>	kW	14,4	15,7	17,0
<b>Refrigeration circuit</b>				
Refrigerant		R290	R290	R290
– Filling quantity as delivered	kg	2	2	2
– Global warming potential (GWP100 acc. to IPCC AR6)		0,02	0,02	0,02
– CO <sub>2</sub> equivalent	t	0,00004	0,00004	0,00004
<b>Dimensions</b>				
Length x width x height				
<b>Indoor unit</b>	mm	597 x 600 x 1900		
<b>Outdoor unit</b>	mm	600 x 1144 x 1382		
<b>Weight indoor unit</b>	kg	170	170	170
<b>Weight outdoor unit</b>	kg	191	191	191
<b>Energy Efficiency <math>\eta_s</math> at W35</b>	%	190	178	178
<b>Energy Efficiency <math>\eta_s</math> at W55</b>	%	145	141	141

Measurement of the sound power level in accordance with EN ISO 12102/EN ISO 9614-2, accuracy class 3 in night mode  
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THE INTEGRATED VISSMANN RANGE OF SOLUTIONS			
Services	VISSMANN WÄRME	VISSMANN VISHARE	...
Digital Services	 ViCare	 VitoGuide	...
Connectivity / Platforms	 Connectivity Inside	 Energy Management Inside	Vitoconnect ...
Products / Systems			

Seamless integration of products and systems with digital services for plant operators and specialist partners

We are the family-owned company Viessmann. Founded in 1917 as a heating technology manufacturer, today we are the world's leading supplier of sustainable climate (heating, cooling and air quality) and renewable energy solutions.

Our integrated solutions offer seamlessly connected products and systems via digital platforms and services, creating a personalised climate of well-being for our users. All our activities are based on the corporate mission statement "We design living spaces for generations to come." This is the responsibility to which we, the 12,750-member Viessmann family, together with our (trade) partners, face up to every day.



We create living spaces for generations to come.



Specialist trade partner No. 1 – for the 16th time in a row

**Partnership in action**

In addition to the complete product range, Viessmann offers a comprehensive range of accompanying services. For example Viessmann Academy offers technical training facilities and a comprehensive training program.

With new digital services Viessmann offers innovative solutions, for example, the operation and monitoring of heating systems via smartphone. The operator benefits from greater safety and convenience. And the heating contractor always has an overview of the systems they are responsible for.



As a family business in its fourth generation we think long-term: we create living space for generations to come. This guiding principle shapes the actions of all members of the large Viessmann family.

#### VISSMANN GROUP IN FIGURES

1917

— Viessmann was founded

12,750

— Employees

2.80

— Billion euros group sales

54

— Percentage abroad

22

— Production companies in  
12 countries

74

— Sales companies in 43 countries

120

— Sales offices worldwide



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