



**VIESSMANN**

TECHNOLOGY BROCHURE

Electric DHW and heating systems

**VITOThERM / VITOPLANAR**

**Electric systems for heating and DHW**

Everything you need to produce hot water, conveniently and efficiently, from a single source – Viessmann.

convenient  
efficient  
decentralised  
intelligent  
economical

Viessmann's comprehensive range now also includes electric DHW and heating systems. This means users get everything from a single source: efficient energy systems for generating power on site, storing it and using it intelligently for heating, cooling and ventilation.

#### Convenient DHW heating with Vitotherm

Vitotherm electric instantaneous water heaters are a good choice for DHW heating. These advanced, fully electronic appliances only consume electricity when hot water is actually needed.

#### Decentralised or centralised solutions for heating with Vitoplanar

In newly built low energy and passive houses, it can make sense to install a Vitoplanar area heating system, in spite of the low energy demand. Vitoplanar products offer flexible application possibilities for modernisation projects.

#### Intelligently combined heat generators

Electronic instantaneous water heaters and electric area heating systems in conjunction with heat pumps provide a sustainable boost to system efficiency.





6



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## 6 VITO THERM INSTANTANEOUS WATER HEATERS WITH INTELLIGENT CONTROL

Innovative 4S technology meets the requirements of many different applications for a convenient hot water supply.

## 8 VITO THERM INSTANTANEOUS WATER HEATERS, IN A VERSATILE RANGE OF MODELS

With five versions of this fully electronic model available, including a mini instantaneous water heater, every requirement is met.

## 10 VITO THERM WATER HEATERS – 5 TO 150 LITRES

These wall mounted water heaters are characterised by high temperature precision, guaranteeing simultaneous use at various draw-off points, and sufficient capacity for a luxurious bath as well.

## 14 THE VITO THERM RANGE – OVERVIEW

Which appliance is right for you? A table compares the appliances and suggests the best application areas for each.

## 16 VITOPLANAR ELECTRIC HEATING SYSTEMS FOR WALLS AND CEILINGS

Decentralised or centralised heating of bathrooms, kitchens, hallways and much more.

## 20 VITOPLANAR ELECTRIC UNDERFLOOR HEATING SYSTEMS

Electric heating mats generate heat directly, without the need for conventional pipework.

## 22 VIESSMANN – THE COMPANY



**Subsidies for  
the Vitotherm EI2**

Replace your old  
instantaneous water  
heater and get a €100  
subsidy.

# Vitotherm instantaneous water heaters with full electronic control for a convenient hot water supply

Viessmann has five Vitotherm instantaneous water heaters in its comprehensive range. These electronic appliances mainly differ with respect to their innovative "S" technology and suit a wide range of applications which require a convenient hot water supply.

## Vitotherm EI2 with 4S function

The 4S function includes inlet/outlet temperature and flow sensors for continuous, automatic output matching. A processor-controlled motorised valve provides accurate, constant water temperatures (30 to 60 °C) at the maximum flow rate.

## €100 subsidy for the Vitotherm EI2

Subsidies of up to €100 are available if you replace an old instantaneous water heater with an advanced Vitotherm EI2.

Everything you need to know about eligible appliances can be found at [foerderung-durchlauferhitzer.de](http://foerderung-durchlauferhitzer.de)

## Vitotherm EI3 and EI4 with 3S function

Vitotherm instantaneous water heaters with 3S function feature inlet and outlet temperature sensors and a flow sensor for continuous output matching. The electronically controlled heating output ensures the required temperature is maintained.

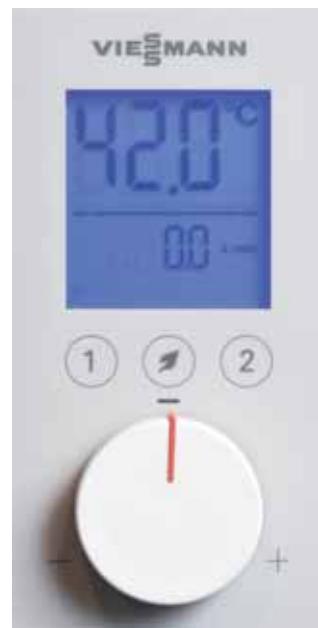
With an installation depth of just ten centimetres, the compact and space saving Vitotherm EI3 can be easily installed under a sink or hand basin.

## Vitotherm EI6 with 2S function

The 2S function consists of an inlet temperature sensor and a flow sensor with output matching. The electronically controlled heating output ensures the required temperature is maintained.

## Vitotherm EI5 DHW convenience in a mini format

The EI5 mini instantaneous water heater offers a hydraulically controlled and affordable supply of hot water to a hand basin, making it the ideal solution for guest toilets.



Informative display on the Vitotherm EI

## TAKE ADVANTAGE OF THESE BENEFITS

- + Broad range of models – suitable for any application
- + Comfort instantaneous water heaters for quick and efficient provision of hot water
- + Electronic instantaneous water heaters for precise water temperatures for many applications
- + Saving energy and water – only the currently required amount of water is heated
- + Efficient – short pipe runs for quick availability of DHW
- + Simple replacement for all common instantaneous water heaters
- + Easy fixing system with integral compensation for unevenness in the wall
- + Quick and straightforward installation
- + Adjustable output
- + Insertion aid for the connecting cable
- + Comprehensive safety concepts
- + Selectable connected load for Vitotherm EI2, EI3 and EI4 instantaneous water heaters


**Vitotherm EI5**

DHW convenience in a mini format

**Vitotherm EI2 –  
with large colour display**

The Vitotherm EI2 fully electronic instantaneous water heater offers excellent DHW convenience. The 4S function\* includes wellness shower programs, eco functions, programmable memory functions and automatic water volume control.

The multifunction display shows the temperature, flow rate, energy consumption and time. If the water temperature exceeds 42 °C, the display illumination changes from blue to red as a warning that the water is too hot. The childproofing function, which takes effect at 43 °C, prevents unintentional adjustments.

Electronic air bubble detection ensures consistently high DHW convenience. The energy consumption and volume of water can be read from the consumption display.

The Vitotherm EI2 has three connected load options.

**Vitotherm EI4 –  
the all-rounder**

The Vitotherm EI4 electronically controlled instantaneous water heater is characterised by its variable temperature selection ranging from 30 to 55 °C. Permanent scald protection can be set to take effect at 43 °C.

**Vitotherm EI3 –  
particularly compact**

The Vitotherm EI3 electronic instantaneous water heater with 3S function\* is recommended for the kitchen. It delivers a water temperature that can be adjusted to the precise degree. The Vitotherm EI3 is suitable for preheated water up to 70 °C. This compact instantaneous water heater can be used to reheat water that has already been preheated to 55 °C. The appliance features a multi stage electronic safety concept and integral scald protection.

With an installation depth of just ten centimetres, this compact and space saving appliance can be easily installed under a sink or hand basin. The Vitotherm EI3 is secured directly to the wall through the back panel, for quick installation. Any unevenness can then be easily levelled out.

The Vitotherm EI3 has two connected load options.

**Vitotherm EI6 –  
for property development**

The Vitotherm EI6 electronic instantaneous water heater with 2S function\*, with a three stage temperature selection switch with 30, 45 and 55 °C, ensures the required temperature for baths and showers at all times.

The Vitotherm EI6 is the ideal choice for property development, for example when replacing old appliances in apartment buildings and as part of modernisation projects. It can be installed remarkably quickly.

**Vitotherm EI5 –  
the mini format**

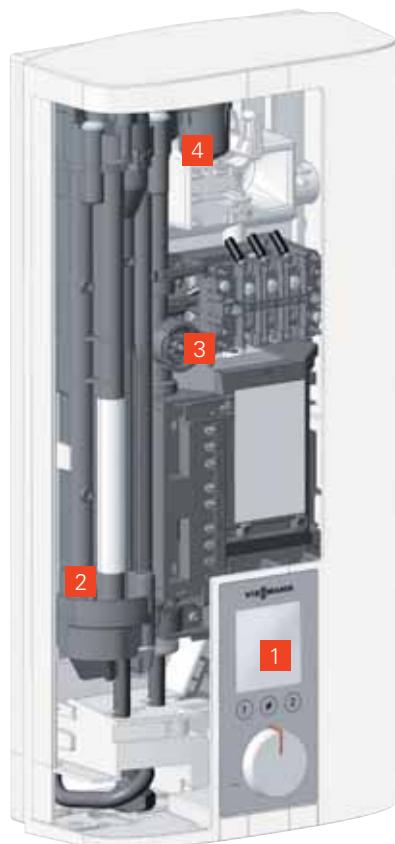
The EI5 mini instantaneous water heater offers an efficient, hydraulically controlled and affordable supply of hot water to a hand basin, making it the ideal solution for guest toilets. The appliance is available with 3.5, 5.7 and 6.5 kW output ratings.

The heating output is hydraulically controlled for the Vitotherm EI5, with a flow switch and automatic flow meter. The appliance is suitable for undersink installation and for connection to commercially available taps.

\* "S" function – see page 7

**Easy to operate,  
economical in  
consumption**

Vitotherm electric instantaneous water heaters are characterised by their easy operation and high cost effectiveness.



**Vitotherm EI2**

- 1 Multifunction display
- 2 Heater
- 3 Flow sensor
- 4 Motorised valve



**Vitotherm EI2**  
The convenient, fully electronic solution



**Vitotherm EI4**  
The economical all-rounder



**Vitotherm EI6**  
Ideal for property development



**Vitotherm EI3**  
Particularly compact: only ten centimetres in depth



**Vitotherm EI5**  
Hydraulically controlled mini instantaneous water heater



5 litre water heaters under a sink or washbasin are a popular choice. Vitotherm ES2 and ES6 appliances are ideal for the kitchen and office.

# Vitotherm wall mounted water heaters make hot water available, quickly and efficiently

The Vitotherm range also includes wall mounted water heaters with a capacity of between 5 and 150 litres. They meet the DHW demand for the kitchen sink and provide the volume of water needed for a bath or shower.

Three adjustable eco functions make the Vitotherm EW4 a particularly efficient and economical choice:

#### **ECO Balance saves energy when only a little water is drawn off**

This mode always offers the maximum volume of DHW and therefore the greatest convenience. In ECO Balance economy mode, the set temperature is automatically reduced from 85 to 60 °C after a week in which little water is drawn off.

#### **ECO Efficiency only warms the water above a particular draw-off rate**

This economy mode boosts energy savings, as the water is only heated after significant draw-off. In ECO Efficiency mode, the water heater automatically heats the water up to the set temperature of 60 °C if 40 percent of its content has been drawn off.

#### **ECO Energetic adjusts to the draw-off pattern**

This economy mode offers maximum energy efficiency through intelligent, dynamic matching to the draw-off pattern. Once ECO Energetic mode is selected, the appliance analyses the draw-off times and volumes over the course of a week. The following week, it is then able to provide the right amounts of mixed water needed at the draw-off time.

The appliance observes user behaviour and automatically adjusts the heat-up times where necessary. This economy mode is ideal when hot water is needed at the same times each week. If the draw-off times change, hot water is available the following week at the changed times. The set temperature is immediately set to 60 °C.



Backlit 7-segment display with the Vitotherm EW4

#### **TAKE ADVANTAGE OF THESE BENEFITS**

- + Wall mounted water heater for quick and efficient provision of hot water
- + Vitotherm EW4: six different water heater capacities (30 to 150 l) for a variety of requirements and applications
- + Vitotherm EW6: low cost alternative for open vented or sealed unvented operation; single circuit, dual circuit or DHW only mode; variable temperature setting from 20 to 80 °C
- + Can make use of a low or standard tariff
- + Efficient – short pipe runs for quick availability of DHW
- + Simultaneous supply of multiple draw-off points
- + Vitotherm ES2/ES4: power saving Thermostop function
- + Vitotherm ES2: anti-drip function to prevent lime scale deposits
- + Quick and straightforward installation
- + Comprehensive safety concepts


**Vitotherm EW4**

DHW convenience in a large format with up to 150 litres of storage capacity

**Vitotherm EW4 and EW6 wall  
mounted water heaters of up  
to 150 litres**

Vitotherm EW4 and EW6 wall mounted water heaters are designed for installation in bathrooms and utility rooms. With a cylinder volume of up to 150 litres, appliances with a capacity of 80 litres and above have sufficient reserves for a bath. Multiple draw-off points can also be supplied – for example a washbasin and shower at the same time. If required, the quick heat-up button is activated.

The temperature is continuously and precisely adjustable to between 35 and 85 °C. The Vitotherm EW4 is equipped with an electronic keypad and the EW6 with a rotary selector.

**7-segment display indicates  
the operating status**

With the Vitotherm EW4, all standard settings are entered directly on the digital user interface and are retained. Furthermore, the backlit display shows the available volume of hot water, the energy consumption, the required temperature set at that time, and various values relating to the current operating status. The appliance has a childproofing function and, if there is a service issue, displays the fault.

**Vitotherm ES2 and ES6 small  
water heaters**

With a cylinder volume of five litres, the Vitotherm ES2 and ES6 small electric water heaters are fast suppliers of hot water in kitchens and offices. The non-pressurised appliances with a 2 kW output simply require a 230 V socket for connection.

Both water heaters are equipped with the Thermostop function, which cuts electricity bills by approx. €30 a year. The ES2 model also features an anti-drip function which prevents water dripping when it is being heated up. Besides reducing water consumption, this also prevents limescale deposits. Both appliances use very little standby energy.

**Large cylinder capacities for baths and showers**

With up to 150 litres in capacity, these wall mounted water heaters facilitate luxurious soaks and long showers.



**VITO THERM EW4**

- 1 7-segment display
- 2 Heating coil
- 3 Cylinder body
- 4 Impressed current anode

**WALL MOUNTED WATER HEATERS**



**Vitotherm EW4**

With maintenance-free impressed current anode and self-learning PCB



**Vitotherm EW6**

With protective magnesium anode and variable temperature setting via rotary selector

**SMALL WATER HEATERS**



**Vitotherm ES2, ES6**

With a cylinder capacity of five litres, also available with anti-drip function

**Vitotherm EI3**

Compact instantaneous water heater from 11 to 13.5 kW

Instantaneous water heater or wall mounted water heater?  
The right solution – with Vitotherm from Viessmann!

	Vitotherm EI comfort instantaneous water heater	Vitotherm EI compact instantaneous water heater	Vitotherm EI mini instantaneous water heater	Vitotherm ES small water heater	Vitotherm EW wall mounted water heater
	EI2    EI4    EI6	EI3	EI5	ES2    ES6	EW4    EW6
<b>Rated output</b>	18 to 27 kW	11 to 13.5 kW	3.5 to 6.5 kW	2 kW	2 to 6 kW
<b>Nominal capacity</b>	–	–	–	5 litres	30 to 150 litres
<b>Power supply</b>	400 V	400 V	230 / 400 V	230 V	230 / 400 V
<b>Energy efficiency class</b>	A	A	A	A	EW4: A (A30) B (A50/80) EW6: B (A30), C (A80/100/120/150)
Individual supply	+	+	+	+	+
Group supply	+	–	–	–	+
Centralised supply	+	–	–	–	+
Hand basin	+	+	+	+	+
Washbasin	+	+	–	–	+
Bidet	+	+	–	–	+
Kitchen sink	+	+	–	+	+
Utility sink	+	+	–	+	+
Bath	+	–	–	–	+*
Shower	+	–	–	–	+
Wellness shower	+	–	–	–	+
Permanent electrical connection	+	+	+	–	+
Electrical connection with plug	–	–	+	+	–

\* Suitable for baths from 80 litres capacity upwards



Double the benefit:  
Vitoplanar electric  
infrared heater with  
a mirrored surface

# Vitoplanar infrared heaters, convectors and underfloor heating systems

There are a wide variety of applications for electric heating systems: for example, in the kitchen or bathroom during the spring/autumn, when it is not yet worth switching on the central heating. Likewise in conservatories and garages, which may occasionally be used as a workspace for hobbies. Electric heating systems are a good choice when modernising older buildings and also in new builds. In the case of the latter, they can even serve as an economical sole means of heating, depending on the insulation value of the building envelope.

## Vitoplanar from Viessmann – efficient and reliable

Vitoplanar systems are efficient and reliable. This is achieved through the consistently high radiant effect, two temperature limiters for a high level of safety, insulated backing for maximum radiation to the front, maintenance-free technology without a magnetic field and, last but not least, flexible installation options.



**Vitoplanar EL3**

Electric wall convector with a radiant surface made from glass

## TAKE ADVANTAGE OF THESE BENEFITS

- + System supplier for conventional and electric heat generators
- + Decentralised or centralised heating of bathrooms, kitchens, hallways and buildings in temporary use
- + Suitable for new builds and modernisation projects
- + Rapid and highly convenient heating at the press of a button
- + Quick and straightforward installation
- + Numerous sizes and output ratings
- + Kits containing all necessary components
- + Low investment costs for electric underfloor heating
- + No maintenance required
- + Low heat losses
- + Ecological operation with "green" power

## Infrared heaters, rapid heaters, wall convectors



**Vitoplanar EC4**  
Wall convector

### Pleasant and evenly distributed infrared heat

Many of us are very familiar with infrared rays from the field of medicine. They are used to warm the body pleasantly before a massage, for example. And infrared lamps are a popular choice in the home for alleviating the symptoms of a cold.

However, this radiated heat can also be used for heating. The infrared heaters developed for this achieve their full effect when the radiation meets objects and people in the building. The energy is then evenly released again to the living space.



Vitoplanar towel holder

### Economical modernisation

Infrared heaters are frequently an alternative to traditional radiators. Replacing outdated night storage heaters – of which there are half a million in Germany alone, according to recent figures – with modern, slimline infrared heaters, is a possible solution in modernisation projects, for example. The power connection is already in place and there is no need for the costly installation of heating pipes, a domestic natural gas connection or investment in a conventional heating system.

### Sole means of heating in well insulated new builds

Infrared heaters can be a useful complement to a heat pump in new builds. They can even serve as the sole means of heating in well insulated homes.

### PRACTICAL ACCESSORIES



Vitoplanar wireless room thermostat



Vitoplanar wireless receiver for connecting with the Vitoplanar wireless room thermostat



Vitoplanar switch mounting thermostat with touchscreen (wired solution)

	<b>Infrared heaters</b>					<b>Rapid heater</b>	<b>Wall convector</b>
<b>Vitoplanar</b>	<b>EI2</b> A1000GW A1500GW	<b>EI2</b> A500/750/ 1000M	<b>EI3</b> A500/750/ 1000GW	<b>EI5</b> A250/500/ 750/1000S	<b>EI6</b> A350/500/ 750/1000SDM	<b>EQ4P</b> A2000	<b>EC4</b> A500/1000/ 1500/2000S
<b>Output ratings</b>							
250 W	-	-	-	+	-	-	-
350 W	-	-	-	-	+	-	-
500 W	-	+	+	+	+	-	+
750 W	-	+	+	+	+	-	-
1000 W	+	+	+	+	+	-	+
1500 W	+	-	-	-	-	-	+
2000 W	-	-	-	-	-	+	+
<b>Product features</b>							
Infrared/convection	+/+	+/-	+/-	+/-	+/-	Rapid heater	-/+
Surface	Glass, white	Glass, mirrored	Glass, white	Steel, white (RAL 9016)	Steel, white (RAL 9016)	Special plastic, white/grey	Steel/ white
Wall mounting	Horizontal	Horizontal/ vertical	Horizontal/ vertical	Horizontal/ vertical	Horizontal/ vertical	Vertical	Horizontal
Ceiling mounting	-	-	-	-	+	-	-
Connecting cable							
1.5 m	-	-	-	-	-	Plug/LCD/prog. unit	Electronic prog. unit
1 m, 3 x 1.5 mm <sup>2</sup>	Plug	Plug	Plug	Plug	Without plug	-	-
0.9 m	-	-	-	-	-	-	Without plug
Plug & play box with on/off	+	+	+	+	-	-	-
<b>Accessories (optional)</b>							
Vitoplanar switch							
mounting thermostat (with touchscreen), wired	+	+	+	+	+	-	-
Vitoplanar wireless receiver	+	+	+	+	+	-	-
Vitoplanar wireless room thermostat	+	+	+	+	+	-	-
Towel holder	-	+	+	+	-	-	-

## For parquet/laminate flooring, ceramic floors



Parquet and laminate are laid directly on the Vitoplanar EF3 heating mat.

Electric heating mats are a luxury feature in new builds. Heat is generated directly, without the need for conventional pipework. Besides their use in new builds, they are also recommended for retrofitting in renovation and modernisation projects. Heating mats provide pleasant warmth underfoot in bathrooms and kitchens, in particular during spring/autumn.

### Fully fledged heating for low energy and passive houses

In low energy and passive houses, electric underfloor heating systems are also an alternative to conventional boilers, due to their low energy demand for heating.

### Minimal installed height – ideal for laminate and parquet

The heating mats, being 1.3 millimetres thick, are also suitable for laying under laminate and parquet flooring. They are the ideal solution in an apartment renovation when conventional underfloor heating is opted for instead of renewing the screed.

The mats are laid as a floating substrate and are quickly and easily installed with just one connecting cable. They can

be flexibly adapted to the size of each room thanks to their different outputs and sizes. They are also available in a kit with a controller and accessories.

### Vitoplanar EF2 – for tiles and ceramic floor coverings

- 160 W/m<sup>2</sup> (standard)
- 160 to 1120 W (1 to 7 m<sup>2</sup>)
- Self-adhesive mesh heating mat
- Ideal for modernisation and new builds (just 2.7 mm high)
- Suitable for open showers
- Only one connecting cable (two-core)
- Low magnetic field operation (< 25 nT)

### Vitoplanar EF2 – accessories included in kit

- 160 W/m<sup>2</sup> (7 m<sup>2</sup>)
- Included in the kit:
  - Pre-assembled heating mat
  - Conduit
  - Floor sensor
  - Sensor well
  - eTouch eco controller for the room or floor temperature, self-learning (e.g. seven-day program)
- Further features as per the Vitoplanar EF2

### Vitoplanar EF3 – for parquet and laminate floorings

- 120 W/m<sup>2</sup> (standard)
- 120 to 840 W (1 to 7 m<sup>2</sup>)
- Floating installation on screed
- Ideal for modernisation projects (only 1.3 mm high)
- Only one connecting cable (two-core)
- Low magnetic field operation (< 25 nT)

### Vitoplanar EF3 – accessories included in kit

- 120 W/m<sup>2</sup> (7 m<sup>2</sup>)
- Included in the kit:
  - Pre-assembled heating mat
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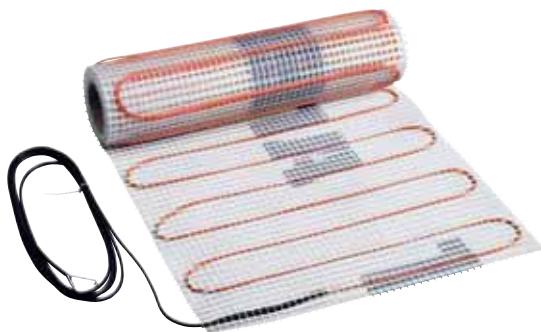


Vitoplanar switch mounting thermostat with touchscreen

**Vitoplanar – in a  
kit complete with  
accessories**

The electric heating mats  
are also available in a kit  
with a pre-assembled  
heating mat, controller  
and connecting cable.

**Vitoplanar EF2**  
for ceramic floors



**Vitoplanar EF3**  
Electric underfloor heating  
system for parquet and  
laminate floors



	Installed height	Output	Only 1 connecting cable	For wet rooms	For modernisation projects	For new builds	Under tiles, stone and marble	In screed	Floating beneath laminate and parquet
<b>Vitoplanar EF2</b>	2.7 mm	160 W/m <sup>2</sup>	+	+	+	+	+	-	-
<b>Vitoplanar EF3</b>	1.3 mm	120 W/m <sup>2</sup>	+	-	+	+	-	-	+



MatriX-Plus burner

#### **Viessmann comprehensive range**

- Boilers for oil or gas
- Combined heat and power generation
- Hybrid appliances
- Heat pumps
- Wood combustion technology
- Biogas production plants
- Biogas upgrading plants
- Solar thermal
- Photovoltaic
- Electric heating/DHW systems
- Refrigeration systems
- Accessories

#### **Milestones of heating technology**

As environmental pioneer and technological trailblazer for the heating sector, Viessmann has for decades been supplying exceptionally clean and efficient systems for heating, refrigeration and decentralised power generation. Many of the company's developments are recognised as heating equipment milestones.

#### **Sustainability in action**

As a family business Viessmann takes the long view and places great value on acting responsibly; sustainability is firmly enshrined in the company's principles. For Viessmann, sustainability in action means striking a balance between economy, ecology and social responsibility throughout the company; meeting current needs without compromising the quality of life of future generations.

With its strategic sustainability project, Viessmann demonstrates at its own head office in Allendorf (Eder) that the energy and climate policy goals set by the German government for 2050 can in fact be achieved today with the help of commercially available technology.



**We create living space  
for future generations.**



Number 1 Trade Partner for the 14th consecutive time

#### **Practical partnership**

As part of its comprehensive range, Viessmann also offers a wide selection of complementary services. These services include a comprehensive training and further development programme for trade partners at the well equipped training facilities of the Viessmann Academy.

With its new digital services, Viessmann offers innovative solutions such as the operation and monitoring of heating systems by smartphone. Users benefit from greater reassurance and convenience, whilst contractors can keep a constant eye on the systems for which they are responsible.



Viessmann is a leading international manufacturer of efficient energy systems.

#### VIESSMANN GROUP IN FIGURES

1917

— Viessmann was founded

12,100

— employees

2.37

— Group turnover in billions of euros

55

— export share in percent

23

— production companies in

12

— countries

120

— sales offices worldwide

74

— countries with agents and sales companies



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