

## Datasheet

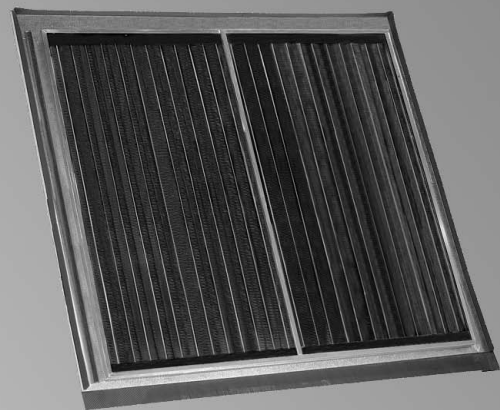
Part numbers and prices: see pricelist



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Vitotec folder, register 13



Vitosol 200-F



Vitosol 200-F, 5DI

### **VITOSOL 200-F** Type SV2 and SH2

Flat-plate collectors for installation on end and across, for installation on flat and pitched roofs as well as for integration into roofs and freestanding installation. Type SH2 also for installation on walls.

### **VITOSOL 200-F** Type 5DI

Large area flat-plate collector for integration into pitched tiled roofs

For DHW heating, central heating backup and swimming pool water heating via a heat exchanger as well as for the generation of process heat.

## Product description Vitosol 200-F, type SV2 and SH2

The main component of the Vitosol 200-F is the Sol-titanium coated copper absorber. It ensures a high absorption of solar radiation and low emission of thermal radiation. A meander-shaped copper pipe through which the heat transfer medium flows is part of the absorber.

The heat transfer medium absorbs heat from the absorber via the copper pipe. The absorber is encased in a highly insulated collector casing that minimises the heat losses of the collector.

The high quality thermal insulation provides temperature stability and is free from gas emissions. The cover comprises a solar glass pane. The glass has a very low iron content, thereby reducing reflection losses.

Up to 10 collectors can be combined in parallel to create a single collector array. For this purpose, the standard delivery includes flexible connecting pipes with O-rings.

A kit with locking ring fittings enables the collector array to be readily connected to the pipes of the solar circuit. The collector temperature sensor is mounted in a sensor well set into the solar circuit flow.



- Ⓐ Solar glass cover, 3.2 mm
- Ⓑ Aluminium cover strip
- Ⓒ Pane seal
- Ⓓ Copper absorber
- Ⓔ Meander-shaped copper pipe

- Ⓕ Mineral fibre insulation mat
- Ⓖ Melamine epoxy foam insulation
- Ⓗ Aluminium frame in RAL 8019
- Ⓚ Back panel made from aluminium-zinc coated sheet steel

## Product description Vitosol 200-F, type 5DI

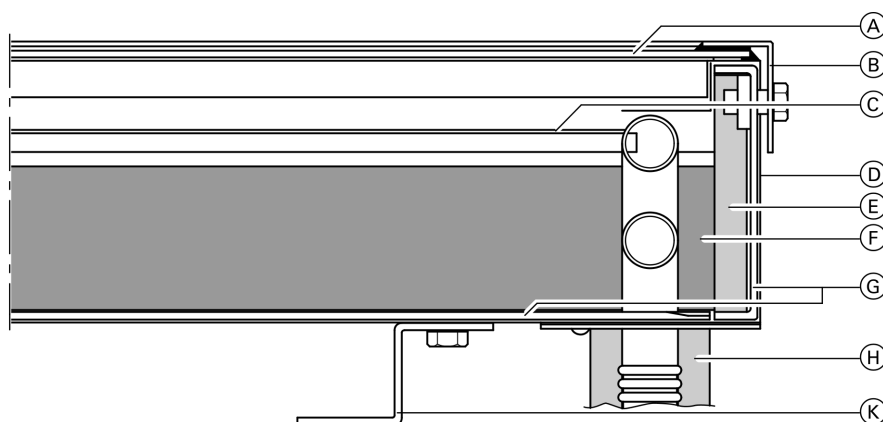
The main component of the Vitosol 200-F is the Sol-titanium coated copper absorber. It ensures a high absorption of solar radiation and low emission of thermal radiation. A copper pipe through which the heat transfer medium flows is fitted to the absorber.

The heat transfer medium absorbs the heat from the absorber via the copper pipe. The absorber is encased in a highly insulated collector casing that minimises the heat losses of the collector.

The high grade thermal insulation provides temperature stability and is free from gas emissions. The cover comprises a solar glass pane. The glass has a very low iron content, thereby reducing reflection losses.

At the back of the collector are flexible, thermally insulated flow and return pipes as well as the sensor well for the collector temperature sensor.

The Vitosol 200-F, type 5DI is designed for roof integration.



- Ⓐ Solar glass cover, 4 mm
- Ⓑ Aluminium cover frame

- Ⓒ Harp absorber made from copper
- Ⓓ Aluminium casing, natural finish

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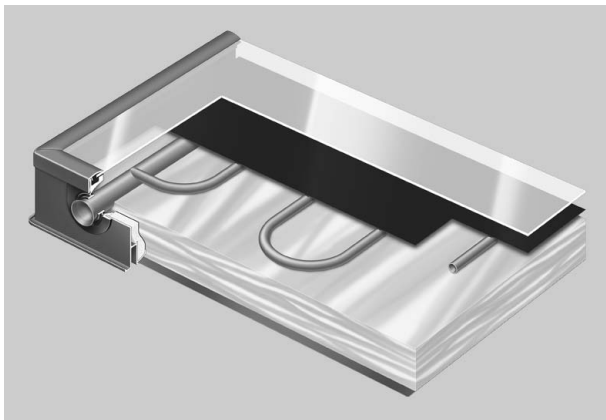
## Product description Vitosol 200-F, type 5DI (cont.)

- Ⓔ Mineral fibre insulation strips
- Ⓕ Mineral fibre insulation mat
- Ⓖ Reinforcing frame

- Ⓗ Flexible connecting pipe with thermal insulation
- Ⓚ Installation hooks

## Benefits of the Vitosol 200-F, type SV2 and SH2

- Powerful flat-plate collector with copper absorber and highly efficient Sol-titanium coating.
- Copper absorber designed as meander layout with integral header. Up to 10 collectors can be linked in parallel.
- Universal application for rooftop, roof integration and freestanding installation, on end or across.
- Attractive collector design; frame in RAL 8019 (brown). Upon request, the frame is also available in all other RAL colours.
- The selectively coated absorber, the cover made from low ferrous solar glass and the highly effective thermal insulation ensure high solar yields.
- Permanently sealed and high stability through all-round folded aluminium frame and endless pane seal.
- Puncture-proof and corrosion-resistant back panel.
- Easy to assemble Viessmann fixing system with load tested and corrosion-resistant components made from stainless steel and aluminium – standard for all Viessmann collectors.
- Quick and reliable collector connection through a flexible corrugated stainless steel pipe plug-in connector.



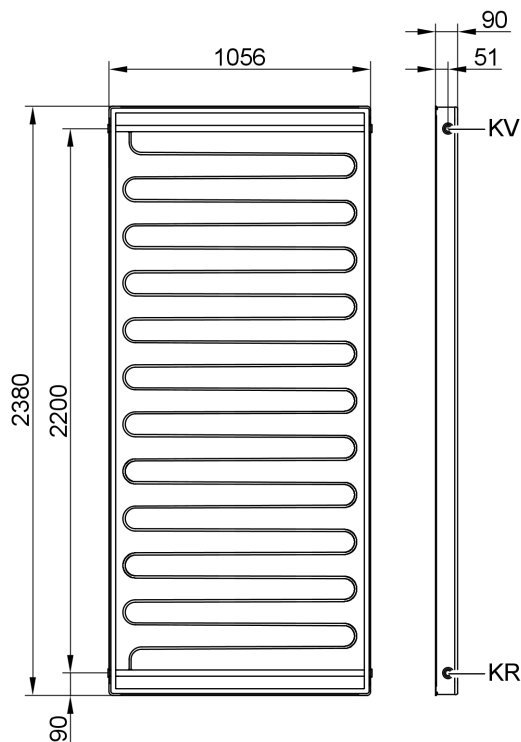
## Benefits of the Vitosol 200-F, type 5DI

- Large area flat-plate collector with a highly efficient Sol-titanium coating.
- High efficiency through a highly selectively coated absorber, integral piping and highly effective insulation.
- Absorber area: 4.76 m<sup>2</sup>
- Quick installation due to the roofing frame fitted onto the collector, flexible connections and lifting eyes.

## Specification, Vitosol 200-F, type SV2 and SH2

### Specification

Type		SV2	SH2
Gross area*1	m <sup>2</sup>	2.51	2.51
Absorber area	m <sup>2</sup>	2.32	2.32
Aperture area*2	m <sup>2</sup>	2.33	2.33
<b>Dimensions</b>			
Width	mm	1056	2380
Height	mm	2380	1056
Depth	mm	90	90
Optical efficiency*3	%	79.3	79.3
Heat loss coefficient k <sub>1</sub> *3	W/(m <sup>2</sup> · K)	3.95	3.95
Heat loss coefficient k <sub>2</sub> *3	W/(m <sup>2</sup> · K <sup>2</sup> )	0.0122	0.0122
Thermal capacity	kJ/(m <sup>2</sup> · K)	6.4	6.4
Weight	kg	52	52
Liquid content (heat transfer medium)	litre	1.83	2.48
Permissible operating pressure*4	bar	6	6
Max. idle temperature*5	°C	221	221
Connection	Ø mm	22	22
Requirements of base structure and fixings	Roof construction with sufficient load-bearing capacity for the prevailing wind forces		



Type SV2

KR Collector return (inlet)  
KV Collector flow (outlet)

\*1 Required when applying for subsidies.

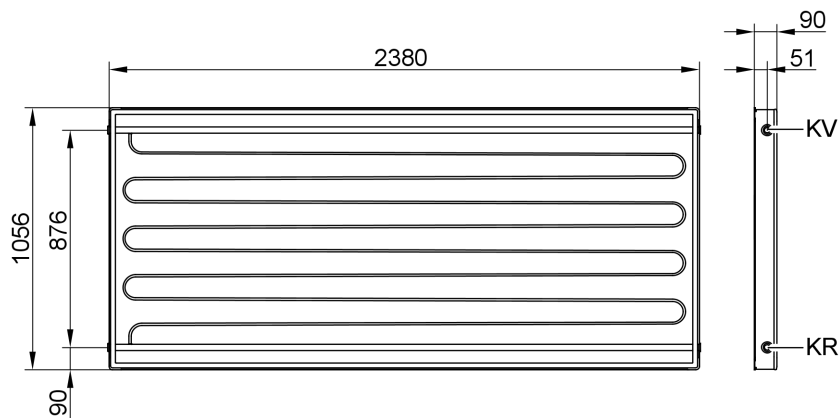
\*2 Decisive when sizing the system.

\*3 Relative to the absorber surface area.

\*4 In a cold, sealed system, the collectors must be pressurised to at least 1 bar.

\*5 The idle temperature is the temperature that occurs at the hottest part of the collector at 1000 W global radiation strength if no heat is drawn off.

## Specification, Vitosol 200-F, type SV2 and SH2 (cont.)



Type SH2

KR Collector return (inlet)  
KV Collector flow (outlet)

## Specification Vitosol 200-F, type 5DI

### Specification

Gross area* <sup>1</sup>	m <sup>2</sup>	5.25
Absorber area	m <sup>2</sup>	4.76
Aperture area* <sup>2</sup>	m <sup>2</sup>	4.92
<b>Dimensions</b>		
Width	mm	2570
Height	mm	2040
Depth	mm	116
Optical efficiency* <sup>3</sup>	%	84
Heat loss coefficient k <sub>1</sub> * <sup>3</sup>	W/(m <sup>2</sup> · K)	4.16
Heat loss coefficient k <sub>2</sub> * <sup>3</sup>	W/(m <sup>2</sup> · K <sup>2</sup> )	0.0073
Thermal capacity	kJ/(m <sup>2</sup> · K)	6.4
Weight	kg	105
Liquid content (heat transfer medium)	litre	4.2
Permissible operating pressure* <sup>4</sup>	bar	6
Max. idle temperature* <sup>5</sup>	°C	185
Connection	Ø mm	22
Requirements of base structure and fixings	Roof construction with sufficient load-bearing capacity for the prevailing wind forces	

\*<sup>1</sup> Required when applying for subsidies.

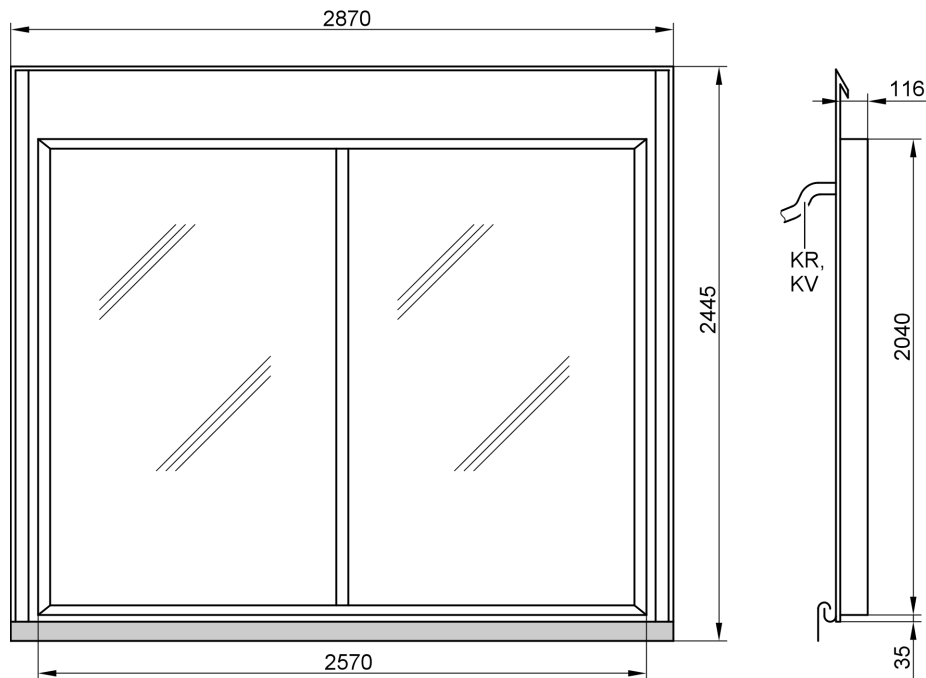
\*<sup>2</sup> Decisive when sizing the system.

\*<sup>3</sup> Relative to the absorber surface area.

\*<sup>4</sup> In a cold, sealed system, the collectors must be pressurised to at least 1 bar.

\*<sup>5</sup> The idle temperature is the temperature that occurs at the hottest part of the collector at 1000 W global radiation strength if no heat is drawn off.

## Specification Vitosol 200-F, type 5DI (cont.)



KR Collector return (inlet)  
KV Collector flow (outlet)

## Standard delivery Vitosol 200-F, type SV2 and SH2

The Vitosol 200-F is delivered fully assembled and fully wired.

*Viessmann offers complete solar heating systems with Vitosol 200-F (packs) for DHW heating and/or central heating backup (see pack pricelist).*

## Standard delivery Vitosol 200-F, type 5DI

The collector is delivered complete with roofing frame, connecting lines and lifting eyes.

## Accessories Vitosol 200-F, type SV2 and SH2

Packed separately, subject to order:

- The fixing sets contain components required for the relevant method of installation, such as:
  - Timber
  - Roof hooks
  - Mounting plates
  - Mounting rails

- Connecting elements for mounting rails
- Clamping brackets, screws, nuts
- Roofing frames and sealing material for roof integration
- Connecting pipes
- Connection set
- Sensor well set
- Spare parts set (assortment of small parts that may be lost during the collector installation)

## Accessories Vitosol 200-F, type SV2, SH2 and 5DI

- Solar-Divicon (pump station for the collector circuit)
- Solar pump line (for a second pump circuit)
- Connection line, 24 m long
- Installation set for connection line to the DHW cylinder
- Air separator
- Quick-acting air vent valve with tee and locking ring fitting
- Locking ring fitting (with or without air vent valve)
- Connection lines, 1.0 m long, 2 pce.
- Solar flow and return line
- Fill valve
- Filling station
- Manual solar fill pump
- Solar expansion vessel with shut-off valve
- Pre-cooling vessel
- Frost protection gauge
- Casing for water connections


- Cover strip for the area between collectors
- Heat transfer medium  
Non-toxic liquid for solar heating systems with active anti-corrosion and anti-ageing protection.
- Solar service case

### Specification, heat transfer medium

Frost protection:	down to -28 °C
Density at 20 °C:	1.032 to 1.035 g/cm <sup>3</sup> to ASTM D 1122
Viscosity at 20 °C:	4.5 up to 5.5 mm <sup>2</sup> /s to DIN 51562
pH value:	9.0 to 10.5 to ASTM D 1287
Colour:	clear, violet fluorescent
Container:	25 or 200 litre in a non-returnable container

## Tested quality

The collector meets the requirements of the "Blue Angel" certificate of environmental excellence to RAL UZ 73.

 CE designation according to current EC Directives

Type SV2, SH2:

Tested in accordance with Solar KEYMARK.

Printed on environmentally friendly,  
chlorine-free bleached paper



Subject to technical modifications.

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