

Flat Plate Collectors

**VITOSOL 200-FM**

**VITOSOL 100-FM**

**VIESSMANN**

climate of innovation



**ThermProtect**  
**World's first**

Heating Systems ◀

Industrial Systems

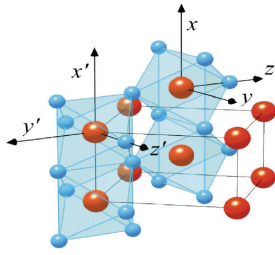
Refrigeration Systems

## Solar technology

### Flat plate collectors

## Vitosol 200-FM

### Vitosol 100-FM



At 75°C the intelligent absorber coating automatically changes its crystalline structure to act as a reflector.

**Viessmann's patented switching absorber layer protects high-capacity flat plate collectors from overheating.**

The high performance Vitosol 200-FM and Vitosol 100-FM flat plate collectors are the ideal addition to every heating system. With an absorber area of 25 sq ft (2.32 m<sup>2</sup>), the solar collectors can be adapted to meet any energy demands. On average, they replace up to 60 percent of the energy required for DHW heating annually and contribute to central heating backup. In conjunction with a condensing boiler, free solar energy allows you to reduce your annual energy consumption for heating and DHW by more than one third.

#### **ThermProtect prevents overheating**

An intelligent absorber layer protects the collectors from overheating. Viessmann's patented ThermProtect technology switches the solar collectors off when they reach a specific temperature. Temperatures of 167°F (75°C) and above cause changes in the crystalline structure of the absorber layer, increasing the rate of heat radiation many times over and reducing the collector output. ThermProtect significantly lowers the maximum temperature inside the collector and prevents steam formation in the solar circuit.

When the collector temperature is lowered, the crystalline structure reverts to its original state. More than 95 percent of the incoming solar energy will then be absorbed and converted into heat. Only the remaining five percent is reflected. There is no limit to the number of times the crystalline structure can reverse, making this function available at all times.

ThermProtect results in a higher yield for the Vitosol 200-FM and Vitosol 100-FM compared to other flat plate collectors, because the output does not stagnate and they are able to generate heat energy at any time.

#### **Versatile Application**

Vitosol flat plate collectors are available in vertical or horizontal versions and can be installed on sloped or flat roofs, as a free-standing installation or on walls. In commercial applications up to 12 collectors can easily be connected into an array with quick-connect fittings. Adaptable to virtually any requirement and application, Vitosol flat plate collectors are the best fit for solar hot water and pool heating applications.

#### **Permanently sealed and well insulated**

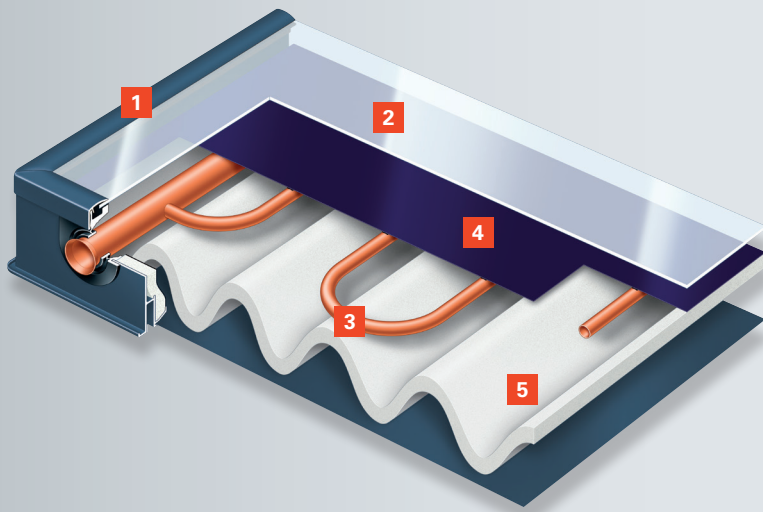
The one-piece wrap-around aluminum frame and seamless glass seal ensure permanent tightness and a highly stable collector. The back panel is puncture-proof and corrosion resistant. Highly effective thermal insulation reduces heat loss, in particular, in the transitional seasons of spring and fall and in the winter as well.

#### **Easy installation**

The Vitosol FM collectors are designed for easy installation. Multiple flat plate collectors can be connected quickly and securely using the flexible connection pipes. The flat plate collectors are suitable for installations of all types, including sloped roof, elevated flat roof, ballasted systems and wall or faced integration. The easy to assemble and pre-engineered mounting system consists of corrosion-resistant components of stainless steel and aluminum.

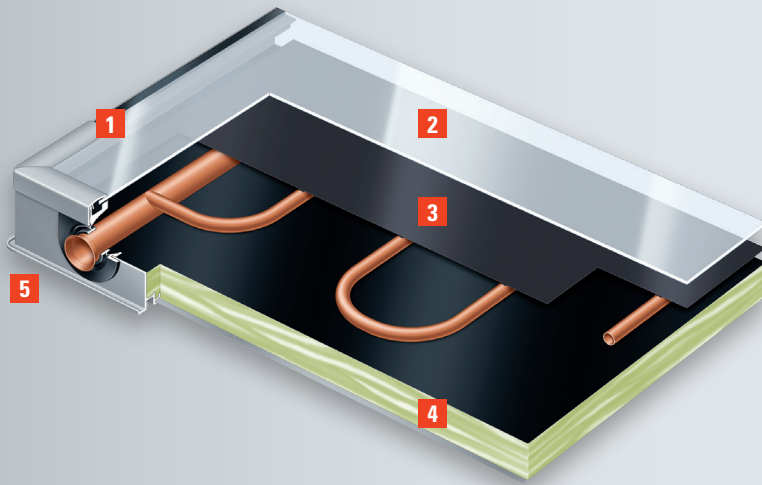


Flexible connection pipes for fast connection of multiple flat plate collectors.



#### Vitosol 200-FM

- 1 One-piece wrap around, powder coated dark blue aluminum frame
- 2 Stable, highly transparent cover made of specialty glass
- 3 Meander-shaped absorber
- 4 Selective absorber with switching ThermProtect absorber layer
- 5 Highly effective heat insulation



#### Vitosol 100-FM

- 1 One-piece wrap-around aluminum frame
- 2 Impact resistant solar glass
- 3 Selective absorber with switching ThermProtect absorber layer
- 4 High quality thermal insulation
- 5 Low-profile frame design



Vitosol 100-FM Flat plate collector

#### Take advantage of these benefits

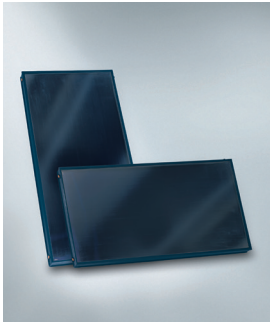
- High performance flat plate collectors with switching ThermProtect absorber layer
- Economy series Vitosol 100-FM and premium series Vitosol 200-FM; suitable for all applications, best choice for solar DHW and pool heating
- No overheating or steam formation of collector during low heat demand
- Fast installation with flexible connection pipes and Pre-engineered mounting systems
- Versatile installation options: Flat, sloped roof or free standing
- Vertical or horizontal orientation, up to 12 collectors per array
- Excellent product life with rugged, high quality, weather-tight and corrosion-resistant construction
- Clean, attractive product design for building design integration

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## Technical data

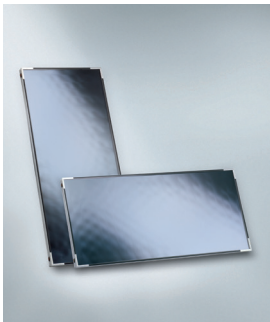
### Vitosol 200-FM

### Vitosol 100-FM



Vitosol 200-FM

Type		Vitosol 200-FM Type SV2F	Vitosol 200-FM Type SH2F
<b>Gross area</b>	ft <sup>2</sup> (m <sup>2</sup> )	27.0 (2,51)	27.0 (2,51)
<b>Absorber area</b>	ft <sup>2</sup> (m <sup>2</sup> )	25.0 (2,32)	25.0 (2,32)
<b>Aperture area</b>	ft <sup>2</sup> (m <sup>2</sup> )	25.1 (2,33)	25.1 (2,33)
<b>Dimensions</b>			
Width	in. (mm)	41¾ (1056)	93¾ (2380)
Height	in. (mm)	93¾ (2380)	41¾ (1056)
Depth	in. (mm)	3½ (90)	3½ (90)
<b>Weight</b>	lb (kg)	90 (41)	90 (41)



Vitosol 100-FM

Type		Vitosol 100-FM Type SV1F	Vitosol 100-FM Type SH1F
<b>Gross area</b>	ft <sup>2</sup> (m <sup>2</sup> )	27.0 (2,51)	27.0 (2,51)
<b>Absorber area</b>	ft <sup>2</sup> (m <sup>2</sup> )	25.0 (2,32)	25.0 (2,32)
<b>Aperture area</b>	ft <sup>2</sup> (m <sup>2</sup> )	25.1 (2,33)	25.1 (2,33)
<b>Dimensions</b>			
Width	in. (mm)	41¾ (1056)	93¾ (2380)
Height	in. (mm)	93¾ (2380)	41¾ (1056)
Depth	in. (mm)	2¾ (72)	2¾ (72)
<b>Weight</b>	lb (kg)	91 (42)	91 (42)