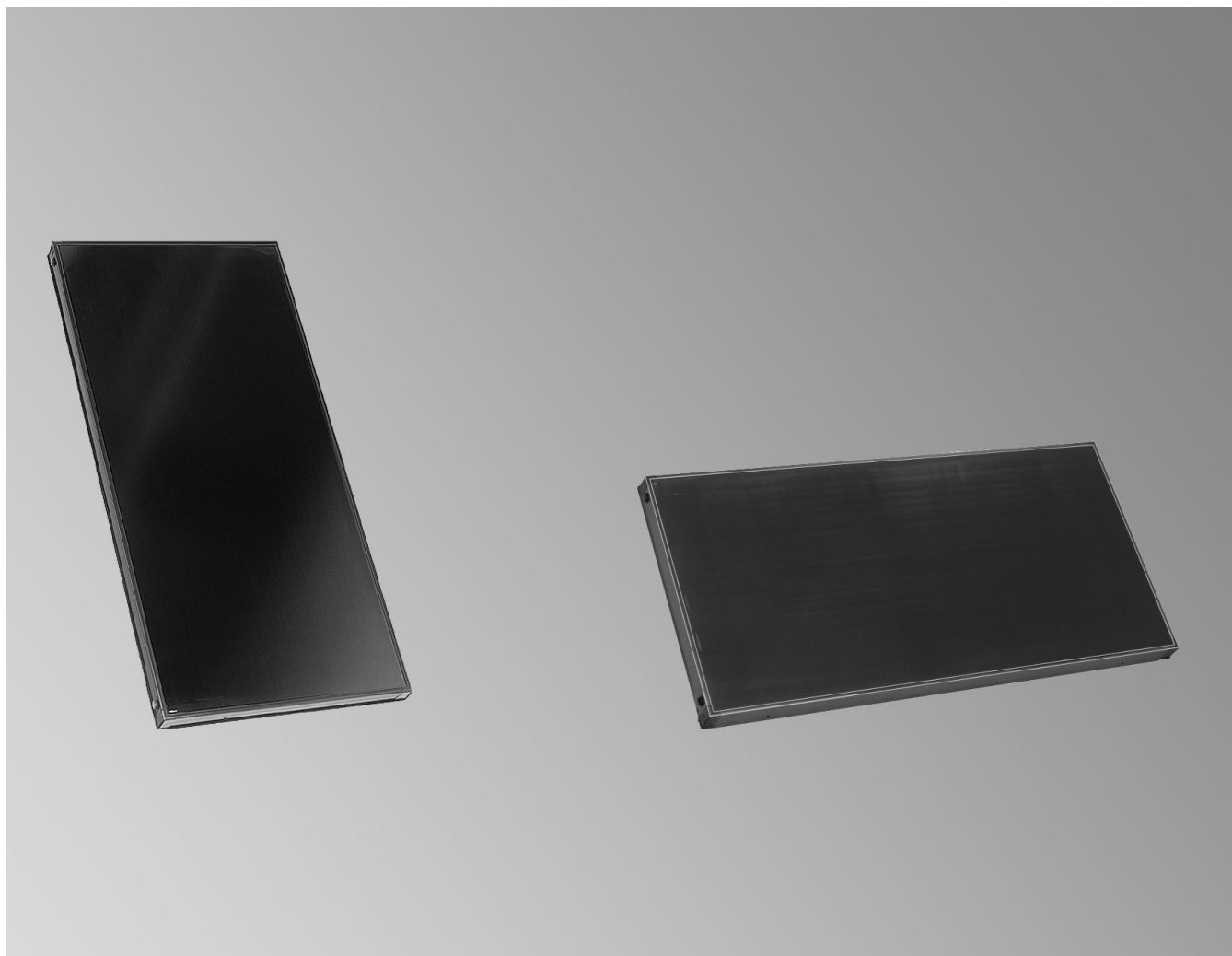


Datasheet

Part no. and prices: See pricelist



VITOSOL 200-F Type SV2F/SH2F and SV2D

Flat-plate collector for vertical or horizontal installation, for installation on flat and pitched roofs and for freestanding installation.
Type SH also on façades

Product description – Vitosol 200-FM, type SV2F/SH2F and Vitosol 200-F, type SV2D

The main component of the Vitosol 200-FM and Vitosol 200-F collectors is the absorber with its highly selective coating. It ensures high absorption of insolation. A meander-shaped copper pipe through which the heat transfer medium flows is fitted to the absorber.

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

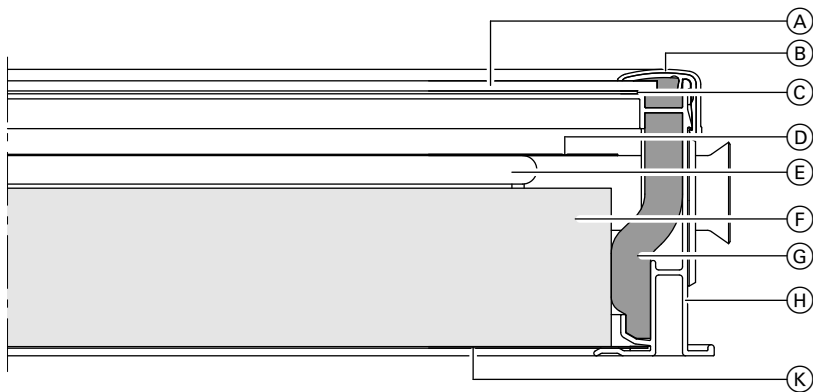
The high grade thermal insulation provides temperature stability and is non-outgassing. The collector is covered with a solar glass panel. The glass has a very low iron content which reduces reflection losses.

Up to 12 collectors can be combined to create a single collector array. For this purpose, the standard delivery includes flexible connection pipes with O-rings.

A connection set with locking ring fittings enables the collector array to be readily connected to the solar circuit pipework. The collector temperature sensor is mounted in a sensor well set, located in the solar circuit flow.

The collector is available in 2 versions

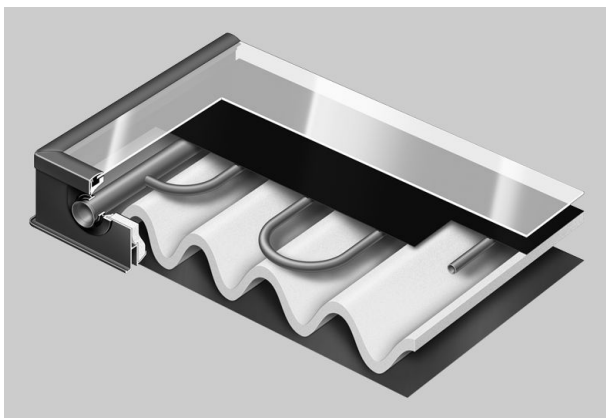
- Vitosol 200-FM, type SV2F/SH2F with ThermProtect switching absorber coating
- The Vitosol 200-F, type SV2D with a special absorber coating is designed for coastal regions (see chapter "Specification").



- | | |
|--|---|
| <ul style="list-style-type: none"> (A) Solar glass cover, 3.2 mm (B) Aluminium cover strip in dark blue (C) Pane seal (D) Absorber | <ul style="list-style-type: none"> (E) Meander-shaped copper pipe (F) Melamine resin foam insulation (G) Melamine resin foam insulation (H) Aluminium frame in dark blue (K) Steel base plate with an aluminium-zinc coating |
|--|---|

Benefits

- High-performance flat-plate collectors for above roof and flat roof installation. Vitosol-FM version with ThermProtect temperature shutdown for a steam-free and fail-safe solar thermal system
- Absorber designed with meander layout with integral headers. Up to 12 collectors can be linked in parallel.
- Attractive collector design; frame in dark blue. Upon request, the frame is also available in all other RAL colours.
- High efficiency due to absorber with selective coating; stable, highly transparent cover made from special glass and highly effective thermal insulation
- Long-lasting impermeability and high stability thanks to all-round folded aluminium frame and seamless pane seal.
- Puncture-proof and corrosion-resistant back panel made from zinc-plated sheet steel
- Easy to assemble Viessmann fixing system with statically tested and corrosion-resistant components made from stainless steel and aluminium – standard for all Viessmann collectors
- Quick and reliable collector connection through flexible corrugated stainless steel pipe push-fit connectors



Specification

The collectors are available with 2 different absorber coatings. Type SV2D has a special absorber coating that allows these collectors to be used in coastal regions.

Note

Viessmann accepts no liability if Vitosol 200-FM, type SV2F/SH2F are used in these regions.

Distance to the coast:

- Up to 100 m:
Only use type SV2D
- 100 to 1000 m:
Type SV2D is recommended

Specification

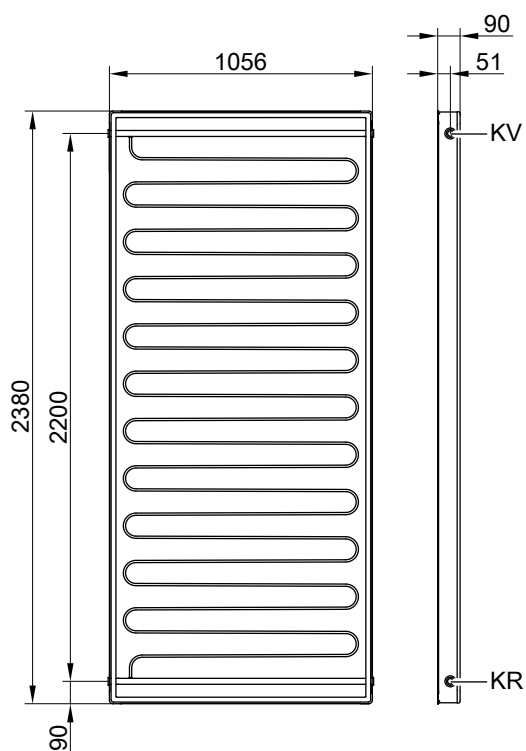
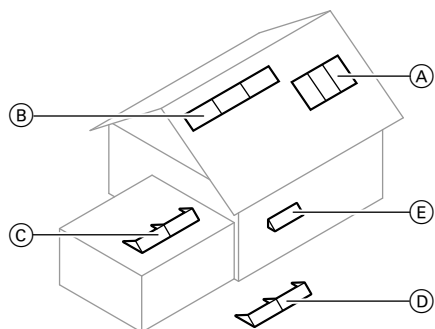
Type		SV2F	SH2F	SV2D
Gross area (required when applying for subsidies)	m ²	2.51	2.51	2.51
Absorber area	m ²	2.31	2.31	2.32
Aperture area	m ²	2.33	2.33	2.33
Spacing between collectors	mm	21	21	21
Dimensions				
Width	mm	1056	2380	1056
Height	mm	2380	1056	2380
Depth	mm	90	90	90
Collector operating range output values				
Optical efficiency				
– Absorber area	%	82.3	82.6	
– Gross area		75.7	76.0	
Heat loss factor k₁				
– Absorber area	W/(m ² · K)	4.421	4.380	
– Gross area		4.069	4.031	
Heat loss factor k₂				
– Absorber area	W/(m ² · K ²)	0.022	0.037	
– Gross area		0.020	0.034	
Theoretical output values across entire temperature range				
Optical efficiency				
– Absorber area	%	82.7	82.9	82.0
– Gross area		76.1	76.3	75.7
Heat loss factor k₁				
– Absorber area	W/(m ² · K)	4.791	4.907	3.553
– Gross area		4.410	4.516	3.280
Heat loss factor k₂				
– Absorber area	W/(m ² · K ²)	0.025	0.029	0.023
– Gross area		0.023	0.026	0.021
Thermal capacity	kJ/(m ² · K)	4.89	5.96	5.47
Weight	kg	39	40	41
Liquid content (heat transfer medium)	Litre	1.83	2.4	1.83
Permiss. operating pressure	bar/MPa	6/0.6	6/0.6	6/0.6
With installation of an 8 bar safety valve (accessory)	bar/MPa	8/0.8	8/0.8	8/0.8
Max. stagnation temperature in the collector	°C	145	145	205
Steam-producing power				
– Favourable installation position	W/m ²	0	0	60
– Unfavourable installation position	W/m ²	0	0	100
Connection	Ø mm	22	22	22

Specification for determining the energy efficiency class (ErP label)

Type		SV2F	SH2F	SV2D
Aperture area	m ²	2.33	2.33	2.33
The following values apply to the aperture area:				
– Collector efficiency η_{col} , at a temperature differential of 40 K	%	59	58	63.9
– Optical efficiency	%	82	82	81.7
– Heat loss factor k₁	W/(m ² · K)	4.75	4.86	3.538
– Heat loss factor k₂	W/(m ² · K ²)	0.024	0.028	0.023
Incidence angle modifier IAM		0.89	0.89	0.91

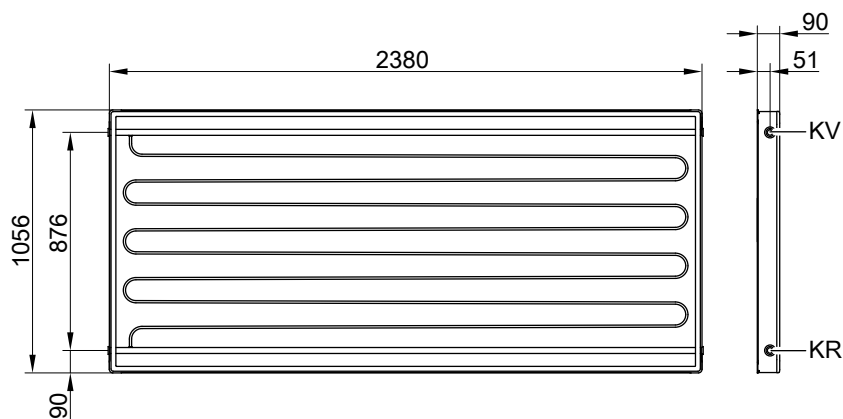
Specification (cont.)

Type	SV2F	SH2F	SV2D
Installation position (see following diagram)	(A, C, D)	(B, C, D, E)	(A, C, D)



Type SV2F/SV2D

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



Type SH2F

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


Tested quality

Tested quality

These collectors meet the requirements of the "Blue Angel" eco-label to RAL UZ 73.

Tested in accordance with Solar KEYMARK to EN 12975 or ISO 9806.

Tested quality (cont.)

 CE designation according to current EC Directives

Subject to technical modifications.

Viessmann Werke GmbH & Co. KG
D-35107 Allendorf
Telephone: +49 6452 70-0
Fax: +49 6452 70-2780
www.viessmann.com

Viessmann Limited
Hortonwood 30, Telford
Shropshire, TF1 7YP, GB
Telephone: +44 1952 675000
Fax: +44 1952 675040
E-mail: info-uk@viessmann.com

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