

Datasheet

Part numbers and prices: see pricelist



File in:
Vitetec folder, register 13



Vitosol 100-F
Typ SV1

VITOSOL 100-F Type SV1 and SH1

Flat-plate collectors for installation on end or across, for installation on flat and pitched roofs and for freestanding installation.

Type SH1 also for installation on walls.

For heating DHW and swimming pool water via a heat exchanger.

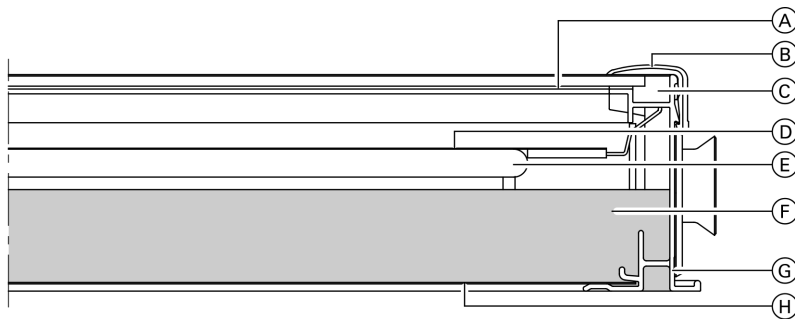
Product description

The selectively coated absorber ensures an even flow through the entire collector. 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 the heat from the absorber via the copper pipe. The absorber is surrounded by a thermally insulated collector casing.

The high quality thermal insulation provides temperature stability and is free from gas emissions. The cover comprises a solar glass pane.

The integral flow and return pipes allow a simple and safe construction, even of larger systems. Up to 12 collectors can be combined 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 inside the solar circuit flow.



- Ⓐ Solar glass cover, 3.2 mm
- Ⓑ Cover angle made from aluminium
- Ⓒ Pane seal
- Ⓓ Copper absorber
- Ⓔ Meander-shaped copper pipe
- Ⓕ Thermal insulation made from mineral fibre
- Ⓖ Aluminium frame sections
- Ⓗ Back panel made from aluminium-zinc coated sheet steel

Benefits

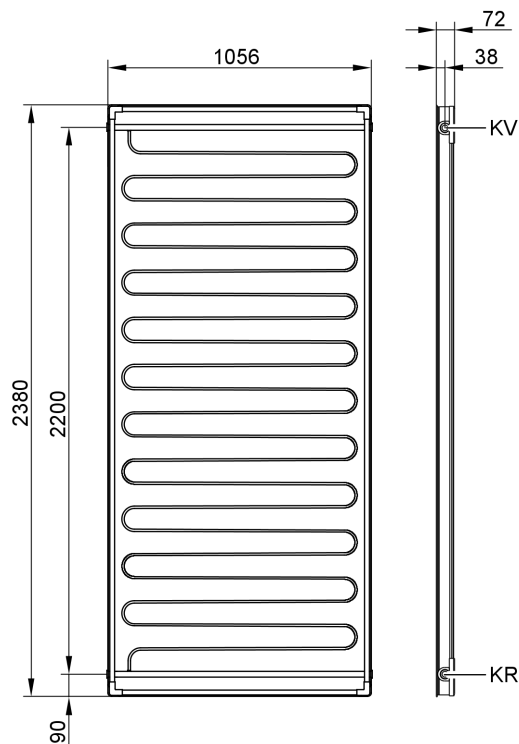
- Powerful, attractively priced flat-plate collector.
- Universal application for rooftop and freestanding installation, either on end or across. Up to 10 collectors can be linked in parallel.
- High efficiency through selectively coated absorber and cover made from hail-resistant solar glass.
- Permanently sealed and high stability through all-round folded aluminium frame and endless pane seal.
- Puncture-proof and corrosion-resistant back panel made from aluminium-zinc coated sheet steel.
- 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.



Specification

Specification

Type		SV1	SH1
Gross area	m ²	2.51	2.51
Absorber area	m ²	2.32	2.32
Aperture area* ¹	m ²	2.33	2.33
Dimensions			
Width a	mm	1056	2380
Height b	mm	2380	1056
Depth	mm	72	72
Optical efficiency* ²	%	74.3	74.3
Heat loss coefficient k ₁ * ²	W/(m ² · K)	4.16	4.16
Heat loss coefficient k ₂ * ²	W/(m ² · K ²)	0.0124	0.0124
Thermal capacity	kJ/(m ² · K)	6.4	6.4
Weight	kg	43	43
Liquid content (heat transfer medium)	litre	1.67	2.33
Permissible operating pressure* ³	bar	6	6
Max. idle temperature* ⁴	°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 SV1

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

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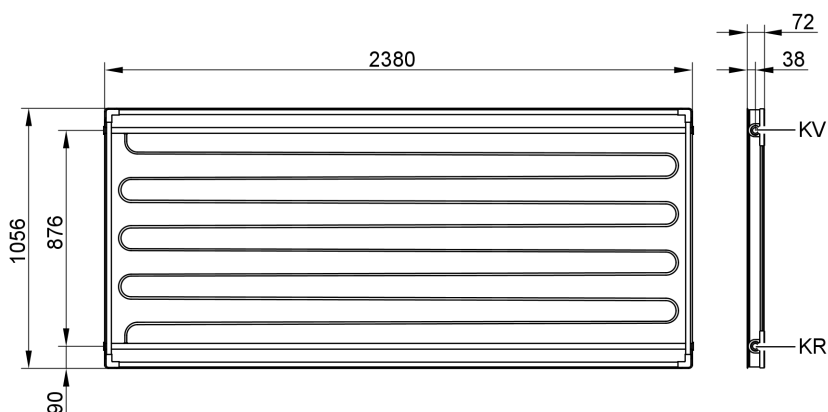
*¹Decisive when sizing the system.

*²Relative to the absorber surface area.

*³In a cold, sealed system, the collectors must be pressurised to at least 1.0 bar.

*⁴The idle temperature is the temperature that occurs at the hottest part of the collector when no heat is drawn off (at 1000 W global radiation).

Specification (cont.)



Type SH1

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

Delivered condition

The Vitosol 100-F is delivered fully assembled and fully wired.

Accessories

Packed separately, subject to order:

- The fixing set with product documentation contains the components required for the relevant method of installation:
 - Timber
 - Roof hooks
 - Mounting plates
 - Mounting rails
 - Connecting elements for mounting rails
 - Clamping brackets, screws, nuts
- Connecting pipes
- Connection set
- Sensor well set
- Spare parts set (assortment of small parts that may be lost during the collector installation)
- 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, 6 or 12 m long
- Fill valve
- Filling station
- Manual solar fill pump
- Solar expansion vessel with shut-off valve
- Pre-cooling vessel
- Frost protection gauge
- 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 ³ to ASTM D 1122
Viscosity at 20 °C:	4.5 up to 5.5 mm ² /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.
Tested in accordance with Solar KEYMARK.

 CE designation according to current EC Directives.

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Printed on environmentally friendly,
chlorine-free bleached paper



Subject to technical modifications.

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