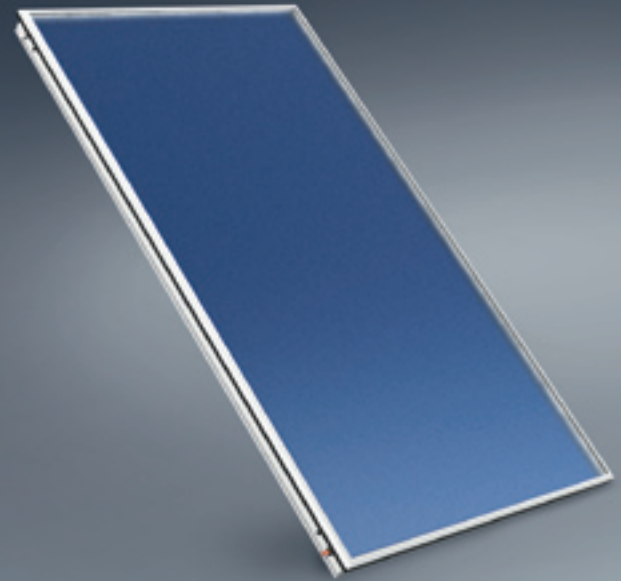


Schüco Premium V

Flat Plate Solar Collector



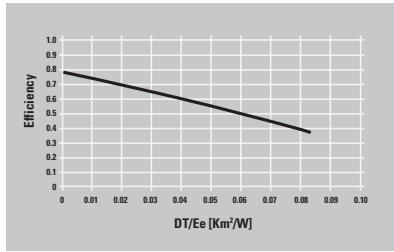
The Schüco Premium V high-performance solar collector converts solar energy into heat and is excellent for providing domestic hot water as well as for heating swimming pools. The high selectivity absorber coating and optimum thermal insulation maximize efficiency. The absorbed solar heat is transferred to a storage tank by freeze-protected, non-toxic solar fluid through a serpentine copper pipe. This aesthetically pleasing collector was developed with performance, longevity, and simple installation in mind.

Features

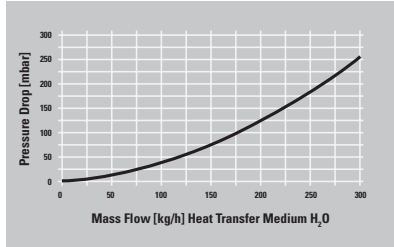
- High efficiency with high selectivity absorber coating.
- Low energy loss due to excellent thermal insulation.
- Robust silver anodized aluminum frame for maximum durability.
- Corrosion-resistant materials for high reliability and long service life.
- High transparency, low-iron glazing.
- Superior flow control over conventional header/riser designs.
- Suitable for pitched roof, flat roof, synergy roof®, awning, and façade installation.
- Tempered glass inset a full half-inch into the frame.
- Quick and simple installation with SolarEZ mounting hardware, collector connectors, and installation accessories.
- Serpentine piping, 1 connection on each long side for portrait orientation of collector.
- Certifications: SRCC OG-100, CE, DIN EN 12975-2, DIN CERTCO, EC guideline 97/23/EC.
- 10 year performance warranty.

SCHÜCO

Technical Data



Performance Characteristics



Pressure Drop Characteristics

Size: 84.7 x 49.3 x 3.6 in.
(2152 x 1252 x 93 mm)

Collector surface area (A_g):
29 sq. ft. (2.69 m²)

Weight (empty): 121 lbs. (55 kg)

Efficiency: $\eta_o = 78.4\%$

Heat loss coefficient:
 $k_1 = 4.28 \text{ W/m}^2\text{K}; k_2 = 0.014 \text{ W/m}^2\text{K}^2$

Incident angle modifier: $k_{(50)} = 0.96$

Thermal output: 2.0 kW_{th}

Piping configuration: Serpentine

Absorber long-wave emissivity:
 $\epsilon = 5.0\%$

Absorber short-wave absorptivity:
 $\alpha = 95\%$

Net aperture area:
27.1 sq. ft. (2.52 m²)

Aperture surface area:
27.0 sq. ft. (2.51 m²)

Absorber material: Copper

Absorber coating: High selectivity

Heat transfer fluid volume:
0.53 gal. (2.0 ltr.)

Minimum volume flow:
0.66 gal./min (2.5 ltr./min)

**Maximum number of collectors
in series:** 4

**Pressure drop (0.66 gal./min
solar fluid):** 1.1 psi (75.0 mbar)

Connection:

12.0 mm Cu pipe, serpentine

Connector type:

Compression fitting

Operating pressure:

46.4 psi (3.2 bar)

Maximum operating pressure:

145 psi (10 bar)

Test pressure: 290 psi (20 bar)

Stagnation temperature:

381°F (194°C)

Maximum operating temperature:

248°F (120°C)

Solar glazing:

Low-iron, high transparency

Transmittance: >91.0%

Thickness: 0.16 in. (4mm)

Frame material: Aluminum

Gaskets: EPDM

Thermal insulation:

0.79 in. (20 mm) mineral wool

Schüco article

Premium V 231 156

Schüco installation system

SolarEZ

Specifications subject to change
without notice.

Schüco USA L.P.

www.schuco-usa.com