

Schüco Slim V

Flat Plate Solar Thermal Collector



The Schüco Slim V is a highly efficient solar collector for thermal hot-water systems. The high selectivity absorber coating provides maximum energy gain, and optimal thermal insulation minimizes losses.

The serpentine copper piping is designed to work with Schüco closed loop, pressurized, no-bleed systems using non-toxic, freeze-proof propylene glycol as a heat transfer medium.

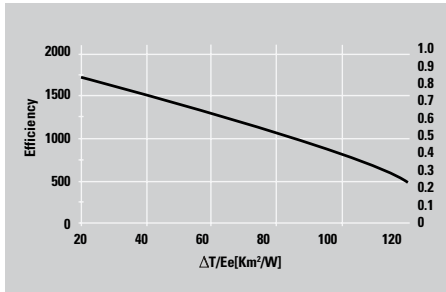
These collectors give the clean, attractive appearance of a high-tech skylight while the dark anodized aluminum frame blends beautifully with the home's exterior.

Features

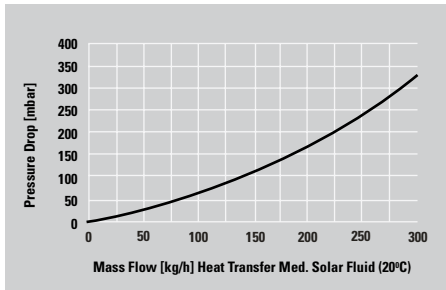
- High efficiency with high selectivity absorber coating.
- Low energy loss thanks to effective thermal insulation.
- Robust aluminum frame for maximum durability.
- High reliability and long service life thanks to corrosion-resistant materials.
- Superior flow control over conventional header/riser designs.
- Stands up to virtually any weather.
- Dark anodized surface looks good on any roof.
- Tempered glass inset a full half-inch into the frame.
- Tough, high transparency, low-iron glazing.
- Suitable for sloped or flat roof installation.
- 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.

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Technical Data



Performance Characteristics



Pressure Drop Characteristics

Thousands of Btu Per Panel Per Day			
Category (Ti-Ta)	Clear Day 2000 Btu/ft ² .d	Mildly Cloudy 1500 Btu/ft ² .d	Cloudy Day 1000 Btu/ft ² .d
A (-9°F)	34	25	17
B (9°F)	31	23	15
C (36°F)	27	19	11
D (90°F)	18	10	3
E (144°F)	9	3	

A – Pool Heating (Warm Climate), B – Pool Heating (Cool Climate)
 C – Water Heating (Warm Climate), D – Water Heating (Cool Climate)
 E – Air Conditioning

Collector Thermal Performance Rating

Size:

80.3 x 44.9 x 2.2in. (2039 x 1140 x 56mm)

Collector surface area (Ag):

25 sq.ft. (2.32 m²)

Weight (empty): 88 lbs. (40kg)

Efficiency: $\eta_o = 76.7\%$

Heat loss coefficient:

$k_1 = 3.71 \text{ W/m}^2\text{K}; k_2 = 0.016 \text{ W/m}^2\text{K}^2$

Incident angle modifier: $k_{(50)} = 0.90$

Thermal output: 1.64 kW_{th}

Piping configuration: serpentine

Absorber long-wave emissivity:

$\epsilon = 5.0\%$

Absorber short-wave absorptivity:

$\alpha = 95\%$

Net aperture area:

23.1 sq. ft. (2.148 m²)

Aperture surface area:

23.0 sq. ft. (2.137 m²)

Absorber material: Copper

Absorber coating: High selectivity

Heat transfer fluid volume:

0.42 gal. (1.6 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 (78.0 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

Slim V 222 909

Schüco installation system

SolarEZ

Specifications subject to change without notice.

Schüco USA L.P.

www.schuco-usa.com