

Schüco Slim V Plus

Flat Plate Solar Thermal Collector



The Schüco Slim V Plus is a highly efficient solar collector for thermal hot-water systems. The highly selective absorbent 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.

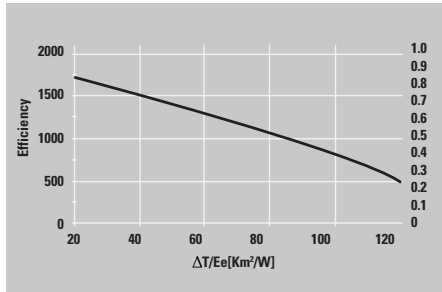
These collectors give the clean, attractive appearance of a high-tech skylight while the dark anodized aluminum frame blends beautifully with the home's exterior.

Features

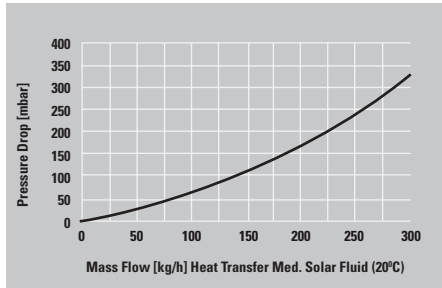
- Outstanding efficiency achieved with sunselect absorbent coating
- Low energy loss due to excellent thermal insulation
- Durable elegant dark anodized aluminum frame
- Low risk of leaking and superior flow control over conventional header/riser designs
- Dark anodized surface blends naturally with almost any rooftop
- High degree of light transmission through low-iron glass
- Transportation to roof made easy due to lightweight design
- Sensor wells located on both sides of collector ensure precise resistance measurements
- Tough, high-transparency, low-iron glazing
- Suitable for sloped or flat roof installation
- Quick and simple installation with SolarEZ mounting hardware, collector connections, 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

SRCC Collector Thermal Performance Rating

Size:

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

Collector surface area (Ag):
25 sq. ft. (2.32 m²)

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

Efficiency: $\eta_0 = 76.7\%$

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 L)

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

Maximum number of collectors in series: 5
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. (4 mm)

Frame Material: Aluminum

Gaskets: EPDM

Thermal Insulation:
0.79 in. (20 mm) mineral wool

Schüco article:

Slim V Plus 232 364

Schüco installation system:
SolarEZ

Specifications subject to change without notice.

Schüco USA L.P.

www.schuco-usa.com