

Solar energy for hotel industry

by



3FSOLAR



SOLAR ONE

Electricity + Heat

from *one* solar collector



PREVIOUSLY

2 separate collectors.
Electricity or heat.

PHOTOVOLTAIC
SOLAR HEAT

ELECTRICITY **HEAT**

REQUIRED ROOF AREA

2x

YIELD PER YEAR

50€
COLLECTOR

INSTALLATION EXPENSES

REDUCTION OF CO₂ EMISSIONS

BRAND-NEW

1 hybrid collector
for electricity + heat.

PHOTOVOLTAIC
SOLAR HEAT

ELECTRICITY + HEAT

FROM ONE COLLECTOR

HALF OF THE ROOF AREA

1x

DOUBLE YIELD PER YEAR

100€
COLLECTOR

HALF OF THE INSTALLATION EXPENSES

SIGNIFICANTLY HIGHER REDUCTION OF CO₂ EMISSIONS

SOLAR ONE

The most efficient solar collector of all time.

**1X ROOF AREA
2X YIELD**

With Solar one hybrid collectors, you can simultaneously harvest electricity from the light and hot water from the heat of our sun. You require half the space compared to two separate systems. Thus, Solar one is the first choice especially for limited roof areas.

**MORE ELECTRICITY YIELD THAN
STANDARD PHOTOVOLTAIC**

Conventional photovoltaic modules heat up to a temperature of up to 90 degrees Celsius thus producing one third less electricity. The hotter the module gets, the poorer its efficiency. Solar one hybrid collectors do not heat up because the heat is dissipated. So it's a win-win: more electricity and additional heat.

**MADE IN AUSTRIA
VERSATILE ENERGY COLLECTOR**

Designed and produced in Austria. Newest technologies combined with professional Craftmanship and innovative subject matter experts guarantee precise manufacturing. The Solar one hybrid collector can be integrated into and combined with any energy system.

Extremely slim.
Extremely efficient.
Extremely nice.

290 W_p
electric power

825 W
thermal power

1682 x 1008 x 66 = 1,7 m²
height x width x depth (mm)

42 kg
weight

Efficiency
71%

More informations at:
www.3f-solar.com

produced by
GASOKOL
SOLAR INNOVATION

Hotel + Hybridcollector = perfect fit



Proportionally
few roof area

24/7 operation

Electric output:
172 W/m²

High energy consumption:

Electrical & thermal

Thermal output:
490 W/m²



Advantage for hotel operator



- Electricity AND heat
- Twice the value added per m²
- Lower installation costs
- Higher electricity yield
- Most efficient collector of all time
- Once installed dual use

- Use of local resources
- Reduction of energy costs
- Advanced technology
- Immense image improvement
- Energy cost cap

Green energy



Datasheet Solar ONE

SOLAR ONE

CASOKOL SOLARTECHNOLOGY 3F SOLAR

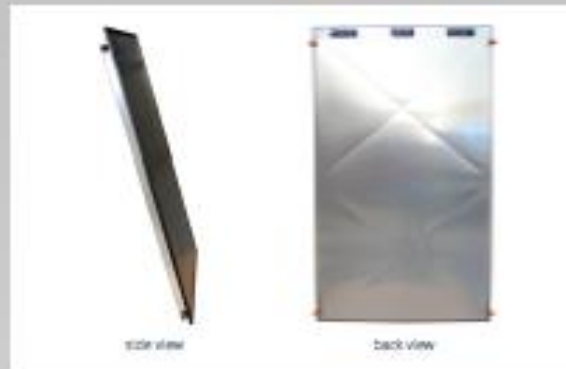
Hybrid collector
Product data sheet
06/2018



290 W_p Electric power + 825 W Thermal power

Simultaneous production

- + All in ONE - make the use of the sun perfect
- + Hoher Wärmeertrag durch argonbefüllte Doppelverglasung
- + Patented technology
- + High-performance
- + Made in Austria



TECHNICAL DATA	
Dimensions	1602 x 1008 x 66 mm
Weight	42 kg (filled)
PV cells	60 mono-crystalline cells, 156 x 156 mm
Operating temperatures	-40 to +95 °C
Socket	Tycro PV-Edge
Connecting cable	2 x 500 mm / 4 mm ²
Plug-in connector	PVST-MC plug-in connection, plug + connector 4 / 6 (MC4)
Glass - laminate structure	2 x 3,2 mm solar glass, AR coating incl. argon filling
Backsheet film	Dun-Solar black / black
Absorber material	Copper - copper
Absorber structure	Ultrasonically welded absorber, soldered pipe harp
Rear wall insulation	TSP solar insulation board laminated with fleece, 80 mm
Collector housing	Welded aluminium tray
ELECTRICAL DATA	
According to IEC 1000 W/m ² , AM 1.5, 25 °C	
Nominal power [P _{nom}]	290 W _p
Voltage [V _{mp}]	32,69 V
Current [I _{mp}]	8,82 A
Open circuit voltage [V _{oc}]	36,42 V
Short-circuit current [I _{sc}]	9,36 A
Max. system voltage	1000 V
Power tolerance	± 5 %
THERMAL DATA	
Test conditions: G = 800 W/m ² , mass flow 121,5 l/h ambient air speed 3 m/s	
Power at T _{in} = 1.000 W/m ²	825 W _t
Aperture area / overall area	1,559 m ² / 1,096 m ²
Max. operating pressure	6 bar
Nominal volume flow	100 - 200 l/h
Filling capacity / collector	1,2 l
Downflow temperature	approx. 95 °C
Heat loss factor a1, a2	5,766 W/m ² K, 0,009 W/m ² K
Hydraulic connection	4 x CU 22 mm

Simultaneous production

17,1% Efficiency

54,4% Efficiency

TOTAL ELECTRICITY + HEAT EFFICIENCY: 71,5 %